Analytics Vidhya Courses

Title: Coding a ChatGPT-style Language Model from Scratch in PyTorch

Description:

Master the art of building a ChatGPT-style language model from scratch with PyTorch. In this course, you'll explore essential NLP concepts, implement transformers, and create a decoder-only architecture step-by-step. Guided by expert tutorials, gain practical skills to develop advanced AI models tailored for real-world applications. Learn to build your own language model with PyTorch step-by-step.

Curriculum:

1 Coding a ChatGPT Introduction Importing Creating Inputs & Lables Position Encoding Masked Self-Attention Putting Pieces Together Creating Decoder Only Transformer

Who Should Enroll:

Ideal for those starting their journey in machine learning and eager to understand NLP and transformer models in-depth.

For developers with some experience in Python or PyTorch, looking to level up by building ChatGPT-like language models.

Those interested in expanding their skill set to include deep learning techniques and cutting-edge language modeling.

Anyone passionate about AI advancements, eager to learn practical techniques for creating state-of-the-art NLP solutions.

Duration:

1 Hour

Rating:

4.8/5

Level:

Beginner

Instructor:

About the Instructor Dr. Joshua Starmer - Co-Founder and CEO of Statsquest Dr. Joshua Starmer, co-founder and CEO of Statsquest, is a visionary in Artificial Intelligence and Data Science, renowned for transforming complex concepts into practical, actionable insights. With a Ph.D. in Biomathematics and a distinguished career spanning academia and industry, his engaging presentations empower and inspire learners to excel in the ever-evolving world of AI and analytics. LinkedIn

Link:

https://courses.analyticsvidhya.com/courses/coding-a-chatgpt-style-language-model-from-scratch-in-pytorch

Title: Mastering Multilingual GenAI Open-Weights for Indic Languages

Description:

Mastering Multilingual GenAI - Open-Weights for Indic Languages" is a course designed to equip you with the knowledge to develop state-of-the-art multilingual AI models using open-weight architectures. Focusing on low-resource languages, particularly Indic languages, the course covers essential topics like multilingual AI training, instruction fine-tuning, model building, and performance evaluation. Unlock the power of open-weight models to build cutting-edge multilingual AI solutions.

Curriculum:

1 Mastering Multilingual GenAI Introduction Importance of Multilingual Training for Multilingual Gen AI Instruction Fine-Tuning Data for Multilingual Measuring Performance for Multilingual Building a Model Human Preferences Curse of

Multilinguality Coding Hands-On

Who Should Enroll:

Those looking to build state-of-the-art multilingual models for low-resource languages.

Tech Entrepreneurs and Innovators who want to build scalable, inclusive AI systems that cater to a diverse, multilingual user base.

Data Scientists seeking to explore state-of-the-art instruction fine-tuning techniques and work with large multilingual datasets.

Students and Professionals aspiring to work in cutting-edge AI fields, with a specific interest in bias mitigation, safety, and ethical considerations in language models.

Duration:

1 Hour

Rating:

4.7/5

Level:

Beginner

Instructor:

About the Instructor Viraat Aryabumi - Research Scholar at Cohere for AI Viraat is a Research Scholar at Cohere for AI, where he contributed to the Aya Project and Aya-101 model. He previously led Machine Learning at Aiara and was a

Machine Learning Scientist at Amazon. He holds a Master's in AI from the University of Edinburgh. LinkedIn

Link:

https://courses.analyticsvidhya.com/courses/mastering-multilingual-genai-open-weights-for-indic-languages

Title: Learning Autonomous Driving Behaviors with LLMs & RL

Description:

This course dives into the development of autonomous driving behaviors using Reinforcement Learning (RL) and Large Language Models (LLMs). You'll explore how RL agents are trained to navigate complex, real-world environments while making safe, human-like driving decisions. The course tackles key challenges such as designing effective reward systems, ensuring safety in high-speed driving scenarios, and improving the interpretability of AI decisions. Through practical projects, you will design RL agents using techniques like Deep Q-Networks (DQN), experience replay, and integrate LLMs to enhance decision-making. Learn to train autonomous driving agents using Reinforcement Learning (RL) and Large Language Models (LLMs). Gain practical experience designing AI systems that simulate safe, human-like driving behavior.

Curriculum:

1 Learning Autonomous Driving Behaviors with LLMs & RL Introduction Evolution RL Understanding RL Challenges with RL Approach to the Problem Statement Hands-On: Learning Autonomous Driving Behaviors with LLMs & RL

Who Should Enroll:

Professionals and students interested in AI, autonomous systems, and machine learning.

Engineers and developers looking to apply RL and LLMs in real-world autonomous driving projects.

Anyone seeking to explore cutting-edge AI technologies and their applications in safety-critical systems.

Duration:

1 Hour

Rating:

4.7/5

Level:

Intermediate

Instructor:

About the Instructor Mayank Baranwal - Senior Scientist at TCS Research | Adjunct Professor at IITB | INAE Young Associate | UIUC | IITK Mayank Baranwal is a Senior Scientist at Tata Consultancy Services (TCS) Research, Mumbai, and an Adjunct Faculty at IIT Bombay. He holds a PhD in Mechanical Science and Engineering from the University of Illinois, Urbana-Champaign (UIUC). His research focuses on optimization, control, and network systems with applications in supply chains, power networks, and deep learning. He has received several accolades, including the Young Scientist Award (2022) and the Gold Award for Best Smart Technology in Electricity Transmission (2023). LinkedIn

Link:

https://courses.analyticsvidhya.com/courses/learning-autonomous-driving-behaviors-with-llms-and-rl

Title: GenAI Applied to Quantitative Finance: For Control Implementation

Description:

This course explores the application of Generative AI in quantitative finance, focusing on building sustainable trading algorithms through keyword extraction, sentiment analysis, and time-series forecasting. Learn to predict commodity prices, such as gold, by integrating data from financial news sources, leveraging sentiment analysis, and optimizing models for robust trading signals. Embark on the journey to understand quantitative finance with GenAI. Learn to implement AI-driven control systems for trading, risk management, and predictive modeling, optimizing financial decision-making and performance.

Curriculum:

1 Gen AI Applied to Quantitative Finance Introduction Overview Problem Definition: Commodity Price Prediction Architecture Hands-On

Who Should Enroll:

No target audience info available

Duration:

1 Hour

Rating:

4.7/5

Level:

Intermediate

Instructor:

Instructor Sidharth Kumar, Principal Data Scientist at Intuit Sidharth Kumar, Principal Data Scientist at Intuit, Bangalore, drives AI integration into products like QuickBooks and TurboTax. He has led data science at Flipkart, and worked as a Quant at ACR Capital and Goldman Sachs. He holds a PhD in Astrophysics from the University of Maryland and a Bachelor's from IIT-Madras. LinkedIn

Link:

https://courses.analyticsvidhya.com/courses/genai-applied-to-quantitative-finance-for-control-implementation

Title: Navigating LLM Tradeoffs: Techniques for Speed, Cost, Scale & Accuracy

Description:

This course provides a concise guide to optimizing Large Language Models (LLMs) by navigating tradeoffs in speed, cost, scale, and accuracy. Learn practical techniques like LoRA, model quantization, and parameter-efficient fine-tuning to improve performance while reducing costs. You'll explore various deployment strategies and understand how to

evaluate LLMs using industry-standard benchmarks, making this course ideal for anyone seeking efficient, scalable AI solutions. Master the art of optimizing LLMs with practical techniques to achieve the best balance of performance and cost.

Curriculum:

1 Navigating LLM Tradeoffs Introduction Resources Technique to Increase Accuracy Training Speed and Cost Optimization Inference Speed and Cost Optimization Scale

Who Should Enroll:

ML Engineers and Data Scientists seeking to optimize LLMs for efficient deployment.

AI Enthusiasts interested in learning practical techniques to balance LLM performance, cost, and scalability.

Professionals in MLOps aiming to understand different deployment strategies for LLMs, including cloud, containerized, and serverless options.

Duration:

1 Hour

Rating:

4.8/5

Level:

Beginner

Instructor:

Instructor Kartik Nighania - MLOps Engineer at Typewise|Certified AWS Cloud and Kubernetes Engineer Kartik Nighania, an MLOps Engineer at Typewise, brings over seven years of AI experience across computer vision, NLP, and

DevOps. Formerly Head of Engineering at Pibit.ai, he led AI-driven automation and infrastructure scaling. His expertise in CI/CD pipelines was honed at HSBC Technology, and his academic work includes AI publications and projects like ML-driven crop health detection. LinkedIn

Link:

https://courses.analyticsvidhya.com/courses/navigating-llm-tradeoffs-techniques-for-speed-cost-scale-and-accuracy

Title: Creating Problem-Solving Agents using GenAI for Action Composition

Description:

This introductory course provides a concise overview of Agentic AI systems, covering their evolution, current state, and practical applications. You will explore key topics including the history of Agentic AI systems, the role of agents today, multi-agent systems, and practical solutions for implementing them. Perfect for those seeking a foundational understanding of intelligent Agentic AI systems in action. Discover how Generative AI is revolutionizing Agentic AI systems to solve complex real-world problems.

Curriculum:

1 Creating Problem-Solving Agents using GenAI for Action Composition Introduction Overview- Count the Number of Agents A brief history of Agentic Systems Agents Today Multi-Agent Systems Today Practical Solutions

Who Should Enroll:

Beginners in AI and ML looking to understand agentic systems and their real-world applications.

Tech enthusiasts and developers interested in learning the basics of creating intelligent, problem-solving agents.

Professionals exploring multi-agent systems for automation and dynamic task orchestration in various domains.

Duration:

1 Hour

Rating:

4.7/5

Level:

Beginner

Instructor:

About the Instructor Vikas Agrawal - Senior Principal Data Scientist at Oracle Analytics Cloud Vikas Agrawal is a Senior Principal Data Scientist at Oracle Analytics Cloud, focused on designing and deploying AI solutions across ERP, SCM, HCM, CX, and MFG for Fusion and NetSuite customers. He ensures that AI models are automatically generated, updated, and tailored to each customer's evolving data. His research involves developing intelligent agents that leverage domain knowledge to solve complex problems by combining tools and critiqued LLMs/LMMs for hypothesis generation and task orchestration. An electrical engineer turned computer scientist, Vikas is an IIT Delhi graduate with experience at CalTech, Intel, and Infosys. LinkedIn

Link:

https://courses.analyticsvidhya.com/courses/creating-problem-solving-agents-using-genai-for-action-composition

Title: Improving Real World RAG Systems: Key Challenges & Practical Solutions

Description:

This course explores the key challenges in building real-world Retrieval-Augmented Generation (RAG) systems and provides practical solutions. Topics include improving data retrieval, dealing with hallucinations, context selection, and optimizing system performance using advanced prompting, retrieval strategies, and evaluation techniques. Through hands-on demos, you will gain insights into better chunking, embedding models, and agentic RAG systems for more robust, real-world applications. Master key challenges in real-world Retrieval-Augmented Generation (RAG) systems. Explore practical solutions, advanced retrieval strategies, and agentic RAG systems to improve context, relevance, and accuracy in AI-driven applications.

Curriculum:

1 Improving Real World RAG System Introduction to RAG Systems Resources RAG System Challenges Practical Solutions Hands-on: Solution for Missing Content in RAG Other Key Challenges Practical Solutions Hands-on: Solution for Missed Top Ranked, Not in Context, Not Extracted _ Incorrect SpecificityHands-on- Solution for Missed Wrong Format Problem Solution Hands-on: Solution for Wrong Format Incomplete Problem Solution HyDE Other Practical Solutions from recent Research Papers

Who Should Enroll:

AI/ML professionals aiming to enhance RAG system performance and solve real-world challenges.

Developers/Engineers building search, conversational, or generative AI systems needing better data retrieval and context handling.

Researchers/Enthusiasts seeking hands-on experience with advanced RAG techniques and agentic systems.

Duration:

1 Hour

Rating:

4.8/5

Level:

Beginner

Instructor:

About the Instructor Dipanjan Sarkar - Head of Community and Principal AI Scientist, Analytics Vidhya Dipanjan Sarkar is a distinguished Lead Data Scientist, Published Author, and Consultant, having a decade of extensive expertise in

Machine Learning, Deep Learning, Generative AI, Computer Vision, and Natural Language Processing. His leadership spans Fortune 100 enterprises to startups, crafting end-to-end data products and pioneering Generative AI upskilling programs. A seasoned mentor, Dipanjan advises a diverse clientele, from novices to C-suite executives and PhDs, across Advanced Analytics, Product Development, and Artificial Intelligence. His recognitions include "Top 10 Data Scientists in India, 2020," "40 under 40 Data Scientists, 2021," "Google Developer Expert in Machine Learning, 2019," and "Top 50 AI Thought Leaders, Global AI Hub, 2022," alongside global accolades and a Google Champion Innovator title in Cloud AI/ML, 2022. LinkedIn

Link:

https://courses.analyticsvidhya.com/courses/improving-real-world-rag-systems-key-challenges

Title: Framework to Choose the Right LLM for your Business

Description:

This course will guide you through the process of selecting the most suitable Large Language Model (LLM) for various business needs. By examining factors such as accuracy, cost, scalability, and integration, you will understand how different LLMs perform in specific scenarios, from customer support to healthcare and strategy development. The course emphasizes practical decision-making with real-world case studies, helping businesses navigate the rapidly evolving LLM landscape effectively. This course provides a comprehensive framework for selecting the right LLM for your business. Learn to evaluate LLMs based on accuracy, cost, scalability, and more, while exploring real-world applications to make informed, strategic AI decisions.

Curriculum:

1 Introduction Introduction | 2 It's an LLM World! It's an LLM World! | 3 Understand Your Business Understand Your Business | 4 Framework to Choose the Right LLM Framework to Choose the Right LLM | 5 Case Studies Case Studies | 6 Conclusion Conclusion

Who Should Enroll:

Business leaders seeking to implement AI-driven solutions efficiently.

Data scientists exploring LLMs for industry-specific applications.

Tech professionals involved in AI integration and decision-making processes.

Duration:

1 Hour

Rating:

4.7/5

Level:

Beginner

Instructor:

About the Instructor Rohan Rao - Principal Data Scientist, H2O.ai; Quadruple Kaggle Grandmaster A Principal Data Scientist at H2O.ai and an IIT-Bombay alumnus, is a highly accomplished professional. He is a quadruple Kaggle Grandmaster and was formerly ranked #1 on AnalyticsVidhya. In addition to his expertise in data science, Rohan is a 9-time National Sudoku Champion. A versatile individual, he is also a passionate coder, reader, writer, and lifelong learner, known in the community as "vopani." LinkedIn

Link:

https://courses.analyticsvidhya.com/courses/choosing-the-right-LLM-for-your-business

Title: Building Smarter LLMs with Mamba and State Space Model

Description:

Unlock the Power of State Space Models (SSM) like Mamba with our comprehensive course designed for AI

professionals, data scientists, and NLP enthusiasts. Master the art of integrating SSM with deep learning, unravel the complexities of models like Mamba, and elevate your understanding of Generative AI's newest and most innovative models. This course is designed to equip you with the skills needed to understand these cutting-edge AI models and how they work, making you proficient in the latest AI techniques and architectures. Master Mamba's selective state space model for LLMs. Discover key components like the Mamba block, optimizing sequence modeling with efficient, scalable training and inference, surpassing traditional Transformers.

Curriculum:

1 Course Overview Course Overview | 2 An Alternative to Transformers Are RNNs a Solution The Problem with Transformers | 3 Understanding State Space Models What is a State Space Model? The Discrete Representation The Recurrent Representation The Convolution Representation The Three Representations The Importance of the A Matrix | 4 Mamba - A Selective State Space Model What Problem does it attempt to Solve? Selectively Retaining Information Speeding Up Computations Exploring the Mamba Block Jamba - Mixing Mamba with Transformers

Who Should Enroll:

AI and ML professionals looking to specialize in State Space Models and Mamba architecture.

Data scientists interested in exploring advanced Generative AI models and architectures.

NLP practitioners who want to integrate SSMs like Mamba in their workflows and use cases.

Duration:

No duration available

Rating:

No rating available

Level:

No level info available

Instructor:

About the Instructor Maarten Grootendorst - Senior Clinical Data Scientist, IKNL; Creator of KeyBERT and BERTopic Marteen holds three master's degrees in Organizational, Clinical Psychology, and Data Science, using them to simplify machine learning for a broad audience. As co-author of Hands-On Large Language Models and through popular blogs, he's reached millions by explaining AI, often from a psychological lens. He's also the creator of widely-used open-source packages like BERTopic, PolyFuzz, and KeyBERT, which have millions of downloads and are utilized by data professionals globally.

Link:

https://courses.analyticsvidhya.com/courses/building-smarter-llms-with-mamba-and-state-space-model

Title: Generative AI - A Way of Life - Free Course

Description:

This course is a transformative journey tailored for beginners and delves into AI-powered text and image generation using leading tools like ChatGPT, Microsoft Copilot, and DALL·E3. Learn practical applications across industries, ethical considerations, and best practices. Whether you're a content creator, business innovator, or AI enthusiast, gain the expertise to harness Generative AI's full potential and drive innovation in your field. Embark on a journey into Generative AI for beginners. Learn AI-powered text and image generation, use top AI tools, and explore industry applications. Gain practical skills, understand ethical practices, and master prompting techniques.

Curriculum:

1 Introduction to Generative AI Fundamentals of Generative AI What is Generative AI? How does Generative AI work? Exploring the Potential of Generative AI GenAI Pinnacle Program Hands On: Let's get generating! | 2 Text Generation Using Generative AI An Overview of Text Generation What is ChatGPT? Working with ChatGPT Working with ChatGPT Plus Build a Custom GPT Working with Microsoft Copilot Working with Google Gemini Gen AI Pinnacle Ad Learning the

Art of Prompting Creating a Chatbot Ethics and Best Practices | 3 Image Generation Using Generative AI Introduction to Image Generation Exploring the Potential of Image Generation Working with free image generation tools Working with Clipdrop Working with Bing Image Creator Working with Firefly Working with Paid Image Generative Tools Working with paid image generative tools DreamStudio Working with DALLE-2 Working with Midjourney Gen AI Pinnacle Ad Prompting your Way to Art Accomplishing Tasks with Image Generation E for Ethics and Efficiency

Who Should Enroll:

No target audience info available

Duration:

6 Hours

Rating:

4.7/5

Level:

Beginner

Instructor:

Instructor Apoorv Vishnoi, Head - Training Vertical, Analytics Vidhya Apoorv is a seasoned AI professional with over 14 years of experience. He has founded companies, worked at start-ups and mentored start-ups at incubation cells. Linkedin

Link:

https://courses.analyticsvidhya.com/courses/genai-a-way-of-life

Title: Building LLM Applications using Prompt Engineering - Free Course

Description:

This course will provide you with a hands-on understanding of building LLM applications and mastering prompt engineering techniques. By the end of the course, you will be proficient in implementing and fine-tuning these

techniques to enhance generative AI model performance. You'll learn to apply various prompting methods and build chatbots on enterprise data, equipping you with the skills to improve conversational AI systems in real-world projects.

Who Should Enroll:

Professionals: Individuals looking to deepen their knowledge and apply advanced LLM and prompt engineering techniques to solve complex problems across various domains.

Aspiring Students: Individuals looking to deepen their knowledge and apply advanced LLM and prompt engineering techniques to solve complex problems across various domains. This free course offers a comprehensive guide on building LLM applications, mastering prompt engineering, implementing best practices, and developing chatbots using enterprise data using advanced techniques like few-shot or one-shot prompting

Curriculum:

1 How to build diffferent LLM Applications? Introduction to Building Different LLM applications Prompt Engineering Retrieval Augmented Generation Finetuning LLMs Training LLMs from Scratch Quiz | 2 Getting Started with Prompt Engineering Course handouts Introduction to Prompt Engineering Set up your machine for Prompt Engineering Prompt Engineering with ChatGPT API Enabling Conversation with ChatGPT API Quiz | 3 Understanding Different Prompt Engineering Techniques Introduction to Understanding Different Prompt Engineering Techniques Few Shot Prompting One Shot Prompting Zero Shot Prompting Quiz Assignment

Who Should Enroll:

No target audience info available

Duration:

2.1 Hours

Rating:

4.6/5

Level:

Beginner

Instructor:

Instructor Kunal Jain, Founder & CEO, Analytics Vidhya Kunal has 15+ years of experience in the field of Data Science and is the founder and CEO of Analytics Vidhya- the world's 2nd largest Data Science community. Linkedin

Link:

https://courses.analyticsvidhya.com/courses/building-llm-applications-using-prompt-engineering-free

Title: Building Your First Computer Vision Model - Free Course

Description:

This course will help you gain a deep understanding of Computer Vision and build advanced CV models using the PyTorch framework. With a carefully curated list of resources and exercises, this course is your guide to becoming a Computer Vision expert. Master the techniques to build convolutional neural networks, and classify images.

Who Should Enroll:

Professionals: Individuals looking to expand their skill set and leverage CV across different industries.

Aspiring Students: For those setting out on their journey to master image data analysis and leave a mark in the tech world. Embarking on a career in Computer Vision can be straightforward with the right guidance. This course provides an ideal pathway to master the complexities of image data analysis.

Curriculum:

1 Introduction to Computer Vision Pixel Perfect - Decoding Images Understanding a CNN - Convolutional Layer Hands on - Image Processing Techniques Understanding a CNN - Striding and Pooling Understanding a CNN - Pooling Layer Understanding AlexNet and Building a CNN Model Quiz

Who Should Enroll:

No target audience info available

Duration:

34 Mins

Rating:

4.6/5

Level:

Beginner

Instructor:

Instructor Apoorv Vishnoi, Head - Training Vertical, Analytics Vidhya Apoorv is a seasoned AI professional with over 14 years of experience. He has founded companies, worked at start-ups and mentored start-ups at incubation cells.

Link:

https://courses.analyticsvidhya.com/courses/building-your-first-computer-vision-model

Title: Bagging and Boosting ML Algorithms - Free Course

Description:

This course will provide you with a hands-on understanding of Bagging and Boosting techniques in machine learning. By the end of the course, you will be proficient in implementing and tuning these ensemble methods to enhance model performance. You'll learn to apply algorithms like Random Forest, AdaBoost, and Gradient Boosting to a real-world dataset, equipping you with the skills to improve predictive accuracy and robustness in your projects.

Who Should Enroll:

Professionals: Individuals looking to deepen their knowledge and apply advanced machine learning techniques like Bagging and Boosting to solve complex problems across various domains

Aspiring Students: Individuals looking to deepen their knowledge and apply advanced ML techniques to bring value to businesses This free course on Advanced ML Algorithms - Bagging and Boosting is perfect place to get a taste of how

advanced ML algorithms look like and function on a real-world business problem.

Curriculum:

1 Bagging Resources to be used in this course Problem Statement Understanding Ensemble Learning Introducing Bagging Algorithms Hands-on to Bagging Meta Estimator Introduction to Random Forest Understanding Out-Of-Bag Score Random Forest VS Classical Bagging VS Decision Tree Project | 2 Boosting Introduction to Boosting AdaBoost Step-by-Step Explanation Hands-on - AdaBoost Gradient Boosting Machines (GBM) Hands-on Gradient Boost Other Algo (XGBoost, LightBoost. CatBoost) Project: Anova Insurance

Who Should Enroll:

No target audience info available

Duration:

No duration available

Rating:

No rating available

Level:

No level info available

Instructor:

N/A

Link:

https://courses.analyticsvidhya.com/courses/bagging-boosting-ML-Algorithms

Title: MidJourney: From Inspiration to Implementation - Free Course

Description:

This course will provide you with a practical understanding of MidJourney tools. By the end of the course, you will be

able to utilize MidJourney effectively and explore alternative tools for your creative projects. You'll learn how to draw inspiration, use MidJourney's features, and understand its applications through engaging lessons.

Who Should Enroll:

Creative Professionals: Individuals looking to enhance their creativity and apply MidJourney tools to various artistic and visual projects.

Aspiring Creatives: Those beginning their journey into visual storytelling and digital art, seeking to learn the fundamentals of MidJourney and its alternatives. Understand the fundamentals of the famous image generation tool - Midjourney in this free course. You will learn the various components of Midjourney and how to use it to bring your imaginations to real world.

Curriculum:

1 MidJourney MidJourney - Storm _ Story MidJourney - Inspiration MidJourney - How to use MidJourney Alternatives Quiz

Who Should Enroll:

No target audience info available

Duration:

33 Mins

Rating:

4.6/5

Level:

Intermediate

Instructor:

Instructor Sandeep Singh, Expert Senior Director, Bain & Company Sandeep Singh, expert senior director at Bain &

Company is a leader in AI and Computer Vision. He has pioneered advanced geospatial solutions in Silicon Valley, enhancing mapping, navigation, and sector-wide applications.

Link:

https://courses.analyticsvidhya.com/courses/midjourney_from_inspiration_to_implementation

Title: Understanding Linear Regression - Free Course

Description:

This free course will help you understand the fundamentals of linear regression in a straightforward manner. By the end of this course, you will be able to build predictive models using linear regression techniques. With a carefully curated list of resources and exercises, this course serves as your comprehensive guide to mastering linear regression. Linear Regression is one of the foundational algorithms used in the industry to make predictions for regression problems. In this free course let us understand Linear Regression using a Business Case Study

Curriculum:

1 Linear Regression Introduction to the Problem Statement Resources for this Course Introduction to Linear Regression Significance of Slope and Intercept in the linear regression How Model Decides The Best-Fit Line Let's Build a Simple Linear Regression Model Model Understanding Using Descriptive Approach Model Understanding Using Descriptive Approach - II Model Building Using Predictive Approach Quiz: Linear regression

Who Should Enroll:

No target audience info available

Duration:

No duration available

Rating:

No rating available

Level:

No level info available

Instructor:

N/A

Link:

https://courses.analyticsvidhya.com/courses/free-understanding-linear-regression

Title: The Working of Neural Networks - Free Course

Description:

This free course will help you understand the end-to-end working of neural networks in a simple manner. By the end of this course, you will be able to build advanced Deep Learning models using the PyTorch framework. With a carefully curated list of resources and exercises, this course serves as your comprehensive guide to mastering deep learning. It is recommended that you complete the advanced Machine Learning course before taking up this course. Kickstarting your career in the field of Deep Learning can be made easy with the right guide. This course will serve as a learning path to help beginners navigate through the complex terrain of Deep Learning.

Curriculum:

1 Understanding the working of Neural Networks How are Neural Networks trained - Forward Propagation Understanding Loss Functions + Hands on Reading: Creating a Custom Loss Function (Optional) Optimization Techniques - Gradient Descent What is Back Propagation? Types of Gradient Descent Common Optimization Techniques - Part 1 Common Optimization Techniques - Part 2 Building a Deep Neural Network (Hands-on Regression Model) Building a Deep Neural Network (Hands-on Classification Model) Quiz

Who Should Enroll:

No target audience info available

Duration:

No duration available

Rating:

No rating available

Level:

No level info available

Instructor:

N/A

Link:

https://courses.analyticsvidhya.com/courses/The%20Working%20of%20Neural%20Networks

Title: The A to Z of Unsupervised ML - Free Course

Description:

Unsupervised machine learning helps uncover hidden patterns and structures in data without labeled examples. It is essential for exploratory data analysis, reducing dimensionality, and discovering intrinsic relationships within datasets. Mastering unsupervised techniques enhances data preprocessing and drives insights in complex datasets where labels are scarce or unavailable. Get ahead of the crowd with this free course on Unsupervised Machine Learning Models. We will be covering popular clustering algorithms and DBSCAN and show you its applications on a real-world business problem.

Curriculum:

1 Understanding Unsupervised Machine Learning Resources to be used in this course. Setting the Context Choosing Clustering Algorithms Solving our Problem using k-means - Part 1 Solving our Problem using k-means - Part 2 Finding optimal K value Analysis and Insights Based on the Plots Introduction to Hierarchical Clustering Analysis (HCA) Solving our Problem using Hierarchical Clustering Introduction to DBSCAN Clustering Solving our Problem using DBSCAN Reading: Applications of Clustering in the Real World Project

Who Should Enroll:

No target audience info available

Duration:

52 Mins

Rating:

4.6/5

Level:

Intermediate

Instructor:

N/A

Link:

https://courses.analyticsvidhya.com/courses/free-unsupervised-ml-guide

Title: Building Your first RAG System using LlamaIndex - Free Course

Description:

This course will guide you through building your first Retrieval-Augmented Generation (RAG) system using LlamaIndex. You will start with data ingestion by loading a file into the system, followed by indexing the data for efficient retrieval. Next, you will set up retrieval configurations and use a response synthesizer to combine data into a coherent response. Finally, you will employ a query engine to generate responses. By the end of this course, you will have a solid understanding of these processes and be able to build an RAG system using LlamaIndex code effectively. Dive into the sea of Retrieval Augmented Generation with this free course that will help you build your first RAG model with the popular LlamaIndex.

Curriculum:

1 Introduction to RAG systems Welcome to this course Why RAG What is RAG system Overview of RAG Framework Quiz Course handouts | 2 Getting Started with LlamaIndex Introduction to LlamaIndex Components of LlamaIndex

Reading Material: How to get your API Key How to get Open AI Keys - 2 min - Website go through Build Your First RAG system using LlamaIndex Quiz

Who Should Enroll:

No target audience info available

Duration:

1.1 Hours

Rating:

4.8/5

Level:

Intermediate

Instructor:

About the Instructor Prashant Sahu, Ph.D IIT Bombay; Data Science Manager, Analytics Vidhya A dynamic and innovative Data Scientist who brings extensive experience in Artificial Intelligence, Machine Learning, and Advanced Analytics to the table.

Link:

https://courses.analyticsvidhya.com/courses/building-first-rag-systems-using-llamaindex

Title: Data Preprocessing on a Real-World Problem Statement - Free Course

Description:

This course will help you get a practical understanding of Data Preprocessing. After this course, you can work on any data and prepare it for modelling. With a carefully curated list of resources, this course is your first step to becoming a Data Scientist. By the end of the course, you will have mastered techniques like EDA and Missing Value Treatment.

Who Should Enroll:

Professionals: Individuals looking to expand their skill set on data cleaning and preparation.

Aspiring Students: For those setting out on their journey to become a data scientist and making a mark in the tech world.

Kickstarting your career in Data Science can be easy with the right guide. This free course will serve as the perfect path to help beginners navigate the complex terrain of Data Preprocessing and prepare any data for modelling.

Curriculum:

1 Preparing the Dataset for Machine Learning Model Resources to be used in this course Introduction to Problem Statement Reading Material - Understanding the Data ML-workflow Tasks to be Performed Combining Product Attribute Data with POS Data Combining all the tables in the Dataframe Understanding the Combined Data Treating Missing Values - Part 1 Treating Missing Values Part - 2 Outlier Detection and Treatment Preparing the Dataset for Supervised and Unsupervised Models Generative AI for Data Analysis

Who Should Enroll:

No target audience info available

Duration:

No duration available

Rating:

No rating available

Level:

No level info available

Instructor:

N/A

Link:

https://courses.analyticsvidhya.com/courses/data-preprocessing

Title: Exploring Stability.AI - Free Course

Description:

This course will give you a practical understanding of Stability.AI tools. By the end of the course, you will be able to deploy and customize SD WebUI, and use the Automatic1111 WebUI on RunPod GPU environments. You'll learn to install, set up, generate, and fine-tune SD WebUI settings, equipping you with the skills to harness Stability.AI's full potential for your projects.

Who Should Enroll:

Professionals: Individuals aiming to enhance their skill set and apply Stability.AI tools/Stable Diffusion in various fields. Aspiring Students: Those beginning their journey to mastering Generative AI tool deployment and customization, looking to make an impact in the evolving world of Generative AI Explore Stability.AI with this free course providing hands-on experience. Learn to deploy SD WebUI, use Automatic WebUI on RunPod GPU environments, and master installation, setup, generation, and customization of SD.

Curriculum:

1 Mastering stability.ai and its tools Introduction to Stability How to use Stability.AI tools Review of Deployment Options for SD WebUI Automatic1111 WebUI on RunPod GPU environment SD WebUI Hands-On - Installation and Setup SD WebUI Hands-On - Generation and Settings Quiz

Who Should Enroll:

No target audience info available

Duration:

1 Hour

Rating:

4.5/5

Level:

Beginner

Instructor:

Instructor Sandeep Singh, Expert Senior Director, Bain & Company Sandeep Singh, expert senior director at Bain & Company is a leader in AI and Computer Vision. He has pioneered advanced geospatial solutions in Silicon Valley, enhancing mapping, navigation, and sector-wide applications.

Link:

https://courses.analyticsvidhya.com/courses/exploring-stability-ai

Title: Building a Text Classification Model with Natural Language Processing - Free Course

Description:

Gain practical insights into Natural Language Processing (NLP) with our comprehensive course. Learn to build NLP models using PyTorch, delve into classification models, and apply techniques like bag-of-words, count vectorizer and so on. Perfect for professionals seeking to enhance their skills and aspiring students entering the tech industry.

Who Should Enroll:

Professionals: Expand your skill set with NLP for real-world applications in diverse industries.

Aspiring Students: Master text data analysis and kickstart your career in AI and NLP. Explore the essentials of NLP with our comprehensive course! Learn text classification, NLP models with PyTorch, and real-world applications. Perfect for beginners and professionals alike, dive into AI-driven text analysis and hands-on projects.

Curriculum:

1 Introduction to NLP What is NLP Common tasks in a NLP Project NLP Libraries Resources for the Course Methods of Text Preprocessing - Part 1 Methods of Text Preprocessing - Part 2 Methods of Text Preprocessing - Part 3 Quiz | 2 Building a basic classification model Introduction to dataset and problem statement Creating a Basic Review Classification Model Understanding TF-IDF and its implementations Understanding N-grams Advanced Preprocessing

Techniques Building an basic ANN model Limitations of ANN Quiz

Who Should Enroll:

No target audience info available

Duration:

70 Mins

Rating:

4.7/5

Level:

Intermediate

Instructor:

Instructor Apoorv Vishnoi, Head - Training Vertical, Analytics Vidhya Apoorv is a seasoned AI professional with over 14 years of experience. He has founded companies, worked at start-ups and mentored start-ups at incubation cells.

Link:

https://courses.analyticsvidhya.com/courses/free-building-textclassification-natural-language-processing

Title: Getting Started with Large Language Models

Description:

This course will help you gain a comprehensive understanding of Large Language Models (LLMs) and develop advanced natural language processing (NLP) applications using the PyTorch framework. With a carefully curated list of resources and exercises, this course is your guide to becoming an expert in LLMs. Master the techniques to build and fine-tune LLMs, and generate human-like text.

Who Should Enroll: Professionals: Individuals looking to expand their skill set and leverage LLMs across different industries. Aspiring Students: For those setting out on their journey to master language data analysis and leave a mark in the tech world. Embarking on a journey into Large Language Models (LLMs) can be seamless with the right approach.

This course offers an optimal pathway to delve into the intricacies of natural language processing and model training.

Curriculum:

1 Introduction Course Objective Course Handouts The Exponential Growth | 2 The Evolution of NLP The Evolution of NLP: Symbolic NLP The Evolution of NLP: Statistical NLP The Evolution of NLP: Deep Learning The Evolution of NLP: Deep Learning Era II The Evolution of NLP: Tranformers and Evolution Quiz | 3 What are Large Language Models? Introduction to Large Language Model What is a Large Language Model? Understanding Foundational Models Different types of LLMs: Based on Response Different types of LLMs: Based on Model Architecture Quiz | 4 The Current State of the Art in LLMs The Current State of the Art in LLMs | 5 Generative AI - Glossary Generative AI- Glossary | 6 Your Feedback Matters! Your Feedback Matters!

Who Should Enroll:

No target audience info available

Duration:

1.2 Hours

Rating:

4.5/5

Level:

Beginner

Instructor:

Instructor Kunal Jain, Founder & CEO, Analytics Vidhya Kunal has 15+ years of experience in the field of Data Science and is the founder and CEO of Analytics Vidhya- the world's 2nd largest Data Science community. Linkedin

Link:

https://courses.analyticsvidhya.com/courses/getting-started-with-llms

Title: Introduction to Generative AI

Description:

This course will provide you with a comprehensive understanding of generative AI, including text and image generation techniques. By the end of the course, you will be have an understanding of using generative AI tools to create diverse content. You'll learn how generative AI works, engage in practical exercises, and gain the skills to implement these techniques in real-world projects.

Who Should Enroll:

Professionals: Individuals looking to enhance their skills in generative AI and apply advanced techniques to create innovative solutions across various domains.

Aspiring Students: Individuals eager to enter the field of generative AI and apply generative AI techniques to tackle complex problems and generate creative content across different fields. This course will provide you with a comprehensive understanding of generative AI, including text and image generation techniques. By the end of the course, you will be have an understanding of using generative AI tools to create diverse content.

Curriculum:

1 Introduction to Generative AI What is Generative AI How does Gen AI work Quiz Text Generation with Gen AI Image Generation with Gen AI Quiz Meet your Instructors Course Handout Your Feedback Matters!

Who Should Enroll:

No target audience info available

Duration:

No duration available

Rating:

No rating available

Level:

No level info available

Instructor:

1 Introduction to Generative AI What is Generative AI How does Gen AI work Quiz Text Generation with Gen AI Image Generation with Gen AI Quiz Meet your Instructors Course Handout Your Feedback Matters!

Link:

https://courses.analyticsvidhya.com/courses/introduction-to-generative-ai

Title: Nano Course: Dreambooth-Stable Diffusion for Custom Images

Description:

Have you ever wondered how to turn your dreams into reality by creating images of your dog traveling around the world or yourself alongside Elon Musk or playing cricket with MSD?

This is exactly where the dreambooth model comes into the picture. With the help of Dreambooth, you can personalize the stable diffusion for a particular subject.

Given just 5 images of our subject, dreambooth can create new images across diverse scenes, poses, views, and lighting conditions that do not appear in the reference images.

In this free nano course on Dreambooth, Sandeep will discuss the historical journey of stable diffusion, its current landscape, and a brief understanding of the stable diffusion training process. Then we will move on to the dreambooth, its training process and finetune dreambooth on our custom dataset. Theory to Practice: Dive into Stable Diffusion, its history, and significance, then master the Dreambooth process. Learn how to fine-tune Dreambooth model with your custom images discussing step by step in detail.

Curriculum:

1 Dreambooth-Stable Diffusion for Custom Images The Current Landscape of Generative AI Why Stable Diffusion Recap on History of Stable Diffusion Intuition behind Stable Diffusion How to train a Stable Diffusion model Introduction to Dreambooth Understanding the Dreambooth Process Tricks to Name Your Concept Uniquely How to Select Images

for Finetuning Dreambooth Setting up the Training Environment Code-Finetuning Dreambooth model on Custom Dataset The Importance of Captioning in Dreambooth Differences between Stable Diffusion and Dreambooth

Who Should Enroll:

No target audience info available

Duration:

1 Hour

Rating:

4.6/5

Level:

Advanced

Instructor:

Instructor Sandeep Singh, Head of Applied AI/Computer Vision at Beans.ai Highly skilled AI leader with expertise in Generative AI, Computer Vision, NLP, and more. Proven record in developing and optimizing AI projects at scale and Exceptional at team building. A visionary leader fostering innovation and agile culture.

Link:

https://courses.analyticsvidhya.com/courses/nano-course-dreambooth-stable-diffusion-for-custom-images

Title: A Comprehensive Learning Path for Deep Learning in 2023

Description:

The most common question we get from beginners in the field of Deep Learning is - Where to begin? The journey to becoming a Deep Learning expert can be difficult if one does not have the right resources to follow. There are a million resources to refer and it is tough to decide where to start from.

We are here to help you take your first steps into the world of Deep Learning. Here is a free learning path for people who want to become a Deep Learning expert in 2023. We have arranged the best resources in a logical manner along with

exercises to make sure that you only need to follow one single source to become a data scientist. Here is a free learning path for people who want to become a Deep Learning expert in 2023.

Curriculum:

1 January 2023 Getting Started Overview of the Learning Path Month-on-Month Plan Introduction to Deep Learning Applications of Deep Learning Setting up your System Descriptive Statistics and Probability Python Exercise : Python AI&ML Blackbelt Plus Program (Sponsored) | 2 February 2023 Start engaging in data science / deep learning communities Inferential Statistics Exercise : Statistics Partial Derivative Linear Algebra - Part 1 Linear Regression Logistic Regression Exercise : Linear and Logistic Regression Regularization Techniques (Ridge and Lasso) Project | 3 March 2023 Start building your GitHub profile Start building your GitHub profile Linear Algebra - Part 2 Getting Started with Neural Networks Understanding Forward Propagation Understanding Back Propagation Exercise : Understanding Neural Networks Build your first Neural Network in Numpy Frameworks for Deep Learning Introduction to Keras Build your first Neural Network in Keras Project | 4 April 2023 Start Participating in Competitions Handling / Pre-processing Images Exercise Hyperparameter Tuning Regularization Techniques Optimization Algorithms Exercise Project | 5 May 2023 Understanding Convolutional Neural Networks (CNNs) Exercise : CNNs Hyperparameter Tuning Transfer Learning Data Augmentation Project | 6 June 2023 Build your resume and apply for Internships Visualizing Convolutional Neural Networks Project 3 on CV Project 4 on CV | 7 July 2023 Start writing articles Handling / Pre-processing Text Data Exercise Recurrent Neural Networks (RNNs) RNNs - Video LSTM GRUs Transfer Learning for NLP Project 1 on NLP | 8 August 2023 Word Embeddings Exercise Project 2 on NLP | 9 September 2023 Attention Models Attention Models - Text Project on Attention Models | 10 October 2023 Unsupervised Deep Learning Project on Unsupervised Deep Learning | 11 November 2023 GANs : Video GANs Project on GANs | 12 December 2023 Apply for Jobs and Internships Way Forward

Who Should Enroll:

No target audience info available

Duration:

No duration available

Rating:

No rating available

Level:

No level info available

Instructor:

N/A

Link:

https://courses.analyticsvidhya.com/courses/a-comprehensive-learning-path-for-deep-learning-in-2023

Title: A Comprehensive Learning Path to Become a Data Scientist in 2024

Description:

Where do I begin? Data science is such a huge field - where do you even start learning about Data Science?

These are career-defining questions often asked by data science aspirants. There are a million resources out there to refer but the learning journey can be quite exhausting if you don't know where to start.

Don't worry, we are here to help you take your first steps into the world of data science! Here's the learning path for people who want to become a data scientist in 2023. We have arranged and compiled all the best resources in a structured manner so that you have a unified resource to become a successful data scientist.

Moreover, we have added the most in-demand skills for the year 2023 for data scientists including storytelling, model deployment, and much more along with exercises and assignments. Want to become a data scientist this year, but confused about where to start and what to follow? This comprehensive learning path from Analytics Vidhya should provide you with all the answers you need!

Curriculum:

1 Overview of the Learning Path 2024 Overview of Learning Path Month-on-Month Plan Your Personalized Learning Path for Data Science AI&ML Blackbelt Plus Program (Sponsored) | 2 January 2024: Data Science Toolkit Plan for January 2024 Understanding Machine Learning and its impact Job of Data Scientist Exercise Overview of the Course A

brief introduction to Python Introduction to Python Test Installing Python Theory of Operators Exercise Understanding Operators in Python Operators Test Understanding variables and data types Variable Test Variables and Data Types in Python Understanding Conditional Statements Exercise Implementing Conditional Statements in Python Conditional Statements test Understanding Looping Constructs Exercise Implementing Looping Constructs in Python Looping Constructs test Understanding Functions Implementing Functions in Python Functions test A brief introduction to data structure Data Structure test Understanding the concept of Lists Lists test Implementing Lists in Python Exercise Understanding the concept of Dictionaries Exercise Implementing Dictionaries in Python Dictionaries test Understanding the concept of Standard Libraries Libraries test Reading a CSV File in Python - Introduction to Pandas Reading a CSV file in Python: Implementation Reading a csv file in Python test Understanding dataframes and basic operations DataFrames and basic operations test Reading dataframes and conduct basic operations in Python Reading dataframes and conduct basic operations in Python Test Indexing a Dataframe Indexing DataFrames test Exercise Sorting Dataframes Merging Dataframes Quiz: Sorting and Merging dataframes Apply function Aggregating data Quiz: Apply function and Aggregating data Basics of Matplotlib Data Visualization using Matplotlib Quiz: Matplotlib Basics of Seaborn Data Visualization using Seaborn Quiz: Seaborn Regular Expressions Understanding Regular Expressions Quiz: Regular Expressions Regular Expressions in Python Quiz: Regular Expressions in Python Cheatsheet for Python Instructions Quiz Python Coding Challenge | 3 February 2024: Data Visualization The Power of Visualization FREE PREVIEW What is Data Visualization and Why Should we Use it FREE PREVIEW Exercise - Definition of Data Visualization Hans Rosling - 200 Countries 200 Years 4 Minutes FREE PREVIEW 4 Key Elements of Effective Data Visualizations FREE PREVIEW Why Tableau is a Powerful Tool for Professionals What We Will Cover in this Course FREE PREVIEW Compare Tableau Against Power BI and Qlik The Tableau Range of Products The 5 Tableau Products you should Know Installing Tableau Desktop on your System Installing Tableau Public on your System Difference Between Tableau Server and Tableau Online Navigating the Tableau Interface (Part 1) Navigating the Tableau Interface (Part 2) Connecting to Data Sources in Tableau Understanding the Problem Statement Download the Superstore Dataset Loading the Dataset and Getting Familiar with the Variables Build your First Visualization in Tableau! Hands-On with Labels and Formatting Playing Around with Colors Using Filters to Build a Pivot Structure in Tableau Exporting your Tableau Worksheet The Different Chart Types in Tableau Line Charts - Working with Time Series Data Building Line Charts in Tableau Exercise - Sales of Each Category Month-by-Month Generating Map Visualizations for Geospatial

Analysis Map Visualizations in Tableau Exercise - Sales by City Analysis Bar Charts, Histograms, Scatter Plots, Bubble Charts, Pie Charts Dual Axis Charts in Tableau Date Dual Axis Charts in Tableau What are Calculated Fields? Feature Engineering in Tableau - Average Shipping Time Exercise - Number of Orders per State Calculating the Average Order Value Average Order Value for Product Sub-Categories What are Parameters in Tableau? Using Parameters to find Top N Customers Using Parameters to Analyze Superstore's Variable Values Joins and their Different Types in Tableau Performing Data Joining in Tableau What is Blending? How is it Different from Joins? Blending Data in Tableau Download the Coffee Chain Dataset Introduction to Dashboards and their Use Cases Reading Material - Dashboards in Tableau Designing your First Dashboard in Tableau Using Parameters to Create Dynamic Dashboards How to Upload your Work to the Tableau Public Gallery Designing the Blueprint for a Multi-Dashboard View to Analyze Sales Building Multiple Interlinked Dashboards in Tableau for our Business The Art of Storytelling 3-Step Storytelling Framework Sketching the Story Blueprint Profits by Region Analysis using Storyboard in Tableau Capstone Project: Sales and Profit by Segment using Storyboards in Tableau Getting started with SQL Introduction FREE PREVIEW Why do we need databases? FREE PREVIEW What is a database? FREE PREVIEW Some properties of a Good Database FREE PREVIEW Types of Databases How data is Stored in Relational Databases How data is stored in NoSQL databases Companies using MySQL FREE PREVIEW Exercise 1 Introduction Architecture: Client and Server MySQL Distributions Local Installation on Mac Local Installation on Linux Local Installation on Windows Licensing Accessing a remote MySQL server Graphical user interfaces Exercise 2 SQL - Installation Guide Introduction What exactly is SQL? History of SQL Connecting to MySQL Types of Commands - DDL (Creation/ Deletion/ Updating of Schema Types of Commands - DML (Manipulating data in tables) Types of Commands - DCL (Managing Access control) Exploring databases Creating tables Inserting data in tables SELECT Statement - Introduction Datatypes in MySQL NULL vs NOT NULL Exercise 3 Introduction Update command - Concept Update command - Example Delete command - Concept Delete command - Example Describe command - Concept Describe command - Example Alter command - Concept and Example Exercise 4 Introduction Importing data from CSV to MySQL Exporting data from MySQL to CSV Backing up databases Restoring databases Exercise 5 Importing and Exporting Datasets - Troubleshooting Guide Introduction Counting Rows and Items Aggregation Functions - SUM, AVG, STDDEV Extreme Values Identification - MIN, MAX Slicing data Limiting data Sorting data Filtering Patterns Groupings, Rolling up data and Filtering in Groups Exercise 6 Introduction Data Eyeballing Data Dictionary Questions we need answers of Analyzing data and creating table structure

Loading data to our MySQL table Data Analysis - Simple Queries Data Analysis - Advanced Queries FIFA19 Players dataset (cleaned) for this Project Introduction The need for joins Different type of joins The Left Join - Concept The Left Join - Practical Example The Inner Join The Cross Join The Right Join The Self Join Exercise Introduction Introduction to Indexing How indexing works (basics) Relationships Types of Relationships Table Constraints - PRIMARY KEY, FOREIGN KEY, UNIQUENESS and AUTO INCREMENT Exercise String functions - CONCAT String functions - Case Conversion String functions - Trimming Strings String functions - Extracting Substrings Date/ Time functions - Current date and time Date/ Time functions - Extracting date and time from field Date/ Time functions - Formatting date and time as Strings Numeric functions SQL CheatSheet Exercise Introduction Setting up a virtual environment Installing the required packages Connecting to MySQL Connecting to database table and pulling data Querying the database- INSERT Querying the database- DELETE Querying the database- SEARCH Querying the database- INDEXING Notes and Resources Subscribe to Data Science Newsletter and Podcast | 4 March 2024: Data Exploration Overview of Statistics Important applications of Statistics What is Descriptive Statistics? Introduction to Design experiments Introduction to Design experiments-Video Exercise Visualizing Data Visualizing Data Central tendency Exercise Variability Unimodal Distribution of Data Bimodal Distribution of Data Normal distribution - Part 1 Normal distribution - Part 2 Z-Score Introduction to Probability- An Overview Principal Of Counting Exercise Permutation Exercise Combination Exercise Conditional Probability - Part 1 Conditional Probability - Part 2 Exercise Binomial Distribution Random variable Expectation and variance Exercise Cheatsheet for Probability Statistics: Inferential-Hypothesis Testing T-test One Way ANOVA Chi-square Cheatsheet on Statistics Exploratory Data Analysis (EDA)- Data Exploration Cheatsheet on EDA Project-1 | Loan Prediction Project-2 | Big Mart Sales Linear Algebra Free Course | 5 April 2024: Basics of Machine Learning and art of storytelling Overview of Machine Learning Understanding Data Science Pipeline Get Familiarised with Command Line (Linux)- Guide Linear Regression Linear Regression-Video Exercise Logistic Regression- Part 1 Logistic Regression - Part 2 Exercise Decision Tree Algorithm Exercise Naive Bayes Support Vector Machine Regression Project - Big Mart Sales Classification Project - Loan Prediction Introduction to Structured Thinking Commonly Asked Puzzles in Interviews How to solve Guesstimates? Excercise: Strategic Thinking Structured Thinking and Communication Course | 6 May 2024: Advanced Machine Learning Ensemble Learning Basics Ensemble Learning Basics-Video Bagging Boosting Random Forest - Simplified Random Forest - Detailed with implementation Exercise Boosting - Detailed with implementation XGBoost LightGBM CatBoost Exercise Advanced Ensemble Technique -

Blending Advanced Ensemble Learning - Stacking Cheatsheet for Machine Learning Image data Text data Audio data Audio data-Video Projects Participating in Competitions Introduction to validation Different Types of Validation Techniques K-fold Cross Validation - Implementation Summary - Validation Techniques Exercise Different methods for finding best hyperparameters of an algorithm Hyperparameter tuning for Random Forest Hyperparameter tuning for GBM Hyperparameter tuning for XGBoost Hyperparameter tuning for LightGBM Bayesian Hyperparameter Optimization Feature Engineering Profile Building Building your Resume Up Level your Data Science Resume Course Ace Data Science Interview Course | 7 June 2024: Other Machine Learning Concepts Basics of Matrix Algebra Matrix Calculus Dimensionality Reduction - Overview Principal Component Analysis (PCA) Singular Value Decomposition (SVD) Singular Value Decomposition (SVD)-Text Unsupervised Learning-K Means and Hierarchical Clustering Clustering - Project Learn Github Introduction to Recommendation Systems Introduction to Recommendation Systems - Video Project: Recommendation System Implementation in Python Introduction to Time Series Forecasting Handling a Non-Stationary Time Series in Python Time Series Modeling using ARIMA Time Series Modeling using Prophet Library Time Series Project Project - Black Friday | 8 July 2024: Introduction to Deep Learning and Computer Vision Setting up the System for Deep Learning Introduction to Deep Learning Build your first Neural Network in Numpy Why are GPUs necessary for Deep Learning? The Evolution and Core Concepts of Deep Learning & Neural Networks An Introduction to Implementing Neural Networks using TensorFlow Introduction to Keras Optimizing Neural Networks using Keras (with Image recognition case study) Understanding Convolutional Neural Networks (CNNs) Build Image Classification Model using Keras Exercise Transfer Learning for Computer Vision Computer Vision Project 1 : Identify the Apparels Computer Vision Project 2: Scene Classification Computer Vision using Deep Learning Course Computer Vision Course (Sponsored) Cheatsheet for Keras Write for Analytics Vidhya's Medium Publication | 9 August 2024: Basics of Natural Language Processing Recurrent Neural Network Long short Term Memory Networks (LSTM) Gated Recurrent Unit (GRU) Useful resources-GRU Text Preprocessing Text Cleaning Text Classification Natural Language Processing (NLP) Using Python Course | 10 September 2024: Model Deployment How to Deploy Machine Learning Models using Flask Tutorial to deploy Machine Learning models in Production as APIs Deploying machine learning models using Streamlit - An introductory guide to Model Deployment An Ode to Model Deployment using Streamlit - Open Sourcing "Typing Tutor for Programmers" | 11 October 2024: Practice and Projects Building a Portfolio with Projects

Who Should Enroll:

No target audience info available

Duration:

2 Hours

Rating:

4.8/5

Level:

Beginner

Instructor:

Instructor Kunal Jain, Founder & CEO, Analytics Vidhya Kunal has 15+ years of experience in the field of Data Science and is the founder and CEO of Analytics Vidhya- the world's 2nd largest Data Science community.

Link:

https://courses.analyticsvidhya.com/courses/a-comprehensive-learning-path-to-become-a-data-scientist-in-twenty-twenty-four

Title: Nano Course: Building Large Language Models for Code

Description:

In this Free Nano GenAI Course on Building Large Language Models for Code, you will-

Learn how to train LLMs for Code from Scratch covering Training Data Curation, Data Preparation, Model Architecture, Training, and Evaluation Frameworks.

Explore each step in-depth, delving into the algorithms and techniques used to create StarCoder, a 15B code generation model trained on 80+ programming languages.

Understand and learn the best practices to train your own StarCoder on the data Learn how to train Large Language

Models for Code from Scratch covering each step involved in detail from training data curation to model evaluation. Deep dive into the journey of creating Starcoder, a 15B parameter code generation model.

Curriculum:

1 Building Large Language Models for Code Introduction Agenda BigCode Community Training LLMs for Code from Scratch: Training Data Curation Training Data Formatting and Preprocessing Model Architecture BigCode Ecosystem Training Frameworks Model Evaluation Tools and Descendants of StarCoder

Who Should Enroll:

No target audience info available

Duration:

38 Mins

Rating:

4.7

Level:

Intermediate

Instructor:

Instructor Loubna Ben Allal, ML Engineer at Hugging Face Loubna Ben Allal is a Machine Learning Engineer at Hugging Face. She has been working on LLMs for code. She is part of the core team of BigCode that released The Stack dataset, SantaCoder, and StarCoder models.

Link:

https://courses.analyticsvidhya.com/courses/building-large-language-models-for-code

Title: Certified AI & ML BlackBelt+ Program

Description:

What happens when you combine ALL of Analytics Vidhya's comprehensive courses, curated and designed by instructors with decades of data science experience? You get the AI & ML BlackBelt+ program!

There are multiple elements that go into becoming an AI expert. Data Science, Machine Learning and Deep Learning are the core components you would need in our journey to break into the wonderful world of AI applications.

AI & ML BlackBelt+ is a thoughtfully curated program designed for anyone wanting to learn data science, machine learning, deep learning in their quest to become an AI professional. It all starts here, so are you ready to take the ride?

You will get access to ALL the courses Analytics Vidhya has curated and designed as part of AI & ML Blackbelt+. What are you waiting for? Start your AI journey today! This comprehensive certified program combines the power of data science, machine learning and deep learning to help you become an AI & ML Blackbelt! Go from a complete beginner to gaining in-demand industry-relevant AI skills.

Curriculum:

No curriculum available

Who Should Enroll:

No target audience info available

Duration:

No duration available

Rating:

No rating available

Level:

No level info available

Instructor:

Upskill yourself for the AI Revolution: Artificial Intelligence has already started making a huge impact in various industries, roles, and functions. The time to upskill yourself and become familiar with artificial intelligence and machine learning is NOW. This comprehensive program will enable you to do just that. Easy to understand content:

Understanding data science concepts can be difficult. That's why all the courses in this program have been curated and designed for people from all walks of life. We don't assume anything - this is AI from scratch. Experienced Instructors: All the material in this program was created by instructors who bring immense industry experience. Combined among us, we have multiple decades of teaching experience. Industry Relevant: All the courses in this program have been vetted by industry experts. This ensures relevance in the industry and enables you with the content which matters most. Real life problems: All projects in the program are modelled on real-world scenarios. We mean it when we say "industry relevant"! Prerequisites This program requires no past knowledge about Data Science, Machine Learning, Artificial Intelligence, or any tool.

Link:

https://courses.analyticsvidhya.com/bundles/certified-ai-ml-blackbelt-plus

Title: Machine Learning Summer Training

Description:

This is the second step of the Machine Learning Summer Training, want to know more click here. In this free Machine Learning Summer Training, you will learn Python, the basics of machine learning, how to build machine learning models, and feature engineering techniques to improve the performance of your machine learning models.

Curriculum:

1 Overview of the Course Overview of the Course FREE PREVIEW Knowing each other FREE PREVIEW AI&ML Blackbelt Plus Program (Sponsored) | 2 Introduction to Data Science and Machine Learning Overview of Machine Learning / Data Science Common Terminology used in Data Science Applications of Data Science | 3 Setting up your system Installation steps for Windows Installation steps for Linux Installation steps for Mac | 4 Introduction to Python Introduction to Python Introduction to Jupyter Notebook Download Python Module Handouts | 5 Variables and Data Types Introduction to Variables Implementing Variables in Python | 6 Operators Introduction to Operators Implementing Operators in Python Quiz: Operators | 7 Conditional Statements Introduction to Conditional Statements Implementing Conditional Statements in Python Quiz: Conditional Statements | 8 Looping Constructs Introduction to Looping Constructs Implementing Loops in Python Quiz: Loops in Python Break, Continue and Pass Statements Quiz: Break,

Continue and Pass Statement | 9 Data Structures Introduction to Data Structures List and Tuple Implementing List in Pyhton Quiz: Lists List - Project in Python Implementing Tuple in Python Quiz: Tuple Introduction to Sets Implementing Sets in Python Quiz: Sets Introduction to Dictionary Implementing Dictionary in Python Quiz: Dictionary | 10 String Manipulation Introduction to String Manipulation Quiz: String Manipulation | 11 Functions Introduction to Functions Implementing Functions in Python Quiz: Functions in Python Lambda Expression Quiz: Lambda Expressions Recursion Implementing Recursion in Python Quiz: Recursion | 12 Modules, Packages and Standard Libraries Introduction to Modules Modules: Intuition Introduction to Packages Standard Libraries in Python User Defined Libraries in Python Quiz: Modules, Packages and Standard Libraries | 13 Handling Text Files in Python Handling Text Files in Python Quiz: Handling Text Files | 14 Introduction to Python Libraries for Data Science Important Libraries for Data Science Quiz: Important Libraries for Data Science | 15 Python Libraries for Data Science Basics of Numpy in Python Basics of Scipy in Python Quiz: Numpy and Scipy Basics of Pandas in Python Quiz: Pandas Basics of Matplotlib in Python Basics of Scikit-Learn in Python Basics of Statsmodels in Python | 16 Reading Data Files in Python Reading Data in Python Reading CSV files in Python Reading Big CSV Files in Python Quiz: Reading CSV files in Python Reading Excel & Spreadsheet files in Python Quiz: Reading Excel & Spreadsheet files in Python Reading JSON files in Python Quiz: Reading JSON files in Python | 17 Preprocessing, Subsetting and Modifying Pandas Dataframes Subsetting and Modifying Data in Python Overview of Subsetting in Pandas I Overview of Subsetting in Pandas II Subsetting based on Position Subsetting based on Label Subsetting based on Value Quiz: Subsetting Dataframes Modifying data in Pandas Quiz: Modifying Dataframes | 18 Sorting and Aggregating Data in Pandas Preprocessing, Sorting and Aggregating Data Sorting the Dataframe Quiz: Sorting Dataframes Concatenating Dataframes in Pandas Concept of SQL-Like Joins in Pandas Implementing SQL-Like Joins in Pandas Quiz: Joins in Pandas Aggregating and Summarizing Dataframes Preprocessing Timeseries Data Quiz: Preprocessing Timeseries Data | 19 Visualizing Patterns and Trends in Data Visualizing Trends & Pattern in Data Basics of Matplotlib Data Visualization with Matplotlib Quiz: Matplotlib Basics of Seaborn Data Visualization with Seaborn Quiz: Seaborn | 20 Machine Learning Lifecycle 6 Steps of Machine Learning Lifecycle Introduction to Predictive Modeling | 21 Problem statement and Hypothesis Generation Defining the Problem statement Introduction to Hypothesis Generation Performing Hypothesis generation Quiz - Performing Hypothesis generation List of hypothesis Data Collection/Extraction Quiz - Data Collection/Extraction | 22 Importance of Stats and EDA Introduction to Exploratory Data Analysis & Data Insights Quiz - Introduction to Exploratory Data Analysis & Data

Insights Role of Statistics in EDA Descriptive Statistics Inferential Statistics Quiz - Descriptive and Inferential Statistics | 23 Build Your First Predictive Model Introduction and Overview FREE PREVIEW Quiz: Introduction and Overview FREE PREVIEW Preparing the Dataset FREE PREVIEW Quiz: Preparing the dataset FREE PREVIEW Build a Benchmark Model: Regression FREE PREVIEW Quiz: Build a Benchmark Model - Regression Benchmark Model: Regression Implementation Quiz: Benchmark Model - Regression Implementation Build a Benchmark Model: Classification Quiz: Build a Benchmark Model - Classification Benchmark Model: Classification Implementation Quiz: Benchmark - Classification Implementation | 24 Evaluation Metrics Introduction to Evaluation Metrics Quiz: Introduction to Evaluation Metrics Confusion Matrix Quiz: Confusion Matrix Accuracy Quiz: Accuracy Alternatives of Accuracy Quiz: Alternatives of Accuracy Precision and Recall Quiz: Precision and Recall Thresholding Quiz: Thresholding AUC-ROC Quiz: AUC-ROC Log loss Quiz: Log loss Evaluation Metrics for Regression Quiz: Evaluation Metrics for Regression R2 and Adjusted R2 Quiz: R2 and Adjusted R2 | 25 Preprocessing Data Dealing with Missing Values in the Data Quiz: Dealing with missing values in the data Replacing Missing Values Quiz: Replacing Missing values Imputing Missing Values in data Quiz: Imputing Missing values in data Working with Categorical Variables Quiz: Working with categorical data Working with Outliers Quiz: Working with outliers Preprocessing Data for Model Building | 26 Build Your First ML Model: k-NN Introduction to k-Nearest Neighbours FREE PREVIEW Quiz: Introduction to k-Nearest Neighbours FREE PREVIEW Building a kNN model Quiz: Building a kNN model Determining right value of k Quiz: Determining right value of k How to calculate the distance Quiz: How to calculate the distance Issue with distance based algorithms Quiz: Issue with distance based algorithms Introduction to sklearn Implementing k-Nearest Neighbours algorithm Quiz: Implementing k-Nearest Neighbours algorithm | 27 Selecting the Right Model Introduction to Overfitting and Underfitting Models Quiz: Introduction to Overfitting and Underfitting Models Visualizing overfitting and underfitting using knn Quiz: Visualizing overfitting and underfitting using knn Selecting the Right Model What is Validation? Quiz: What is Validation Understanding Hold-Out Validation Quiz: Understanding Hold-Out Validation Implementing Hold-Out Validation Quiz: Implementing Hold-Out Validation Understanding k-fold Cross Validation Implementing k-fold Cross Validation Quiz: Understanding k-fold Cross Validation Quiz: Implementing k-fold Cross Validation Bias Variance Tradeoff Quiz: Bias Variance Tradeoff | 28 Linear Models Introduction to Linear Models Quiz: Introduction to linear model Understanding Cost function Quiz: Understanding Cost function Understanding Gradient descent (Intuition) Maths behind gradient descent Convexity of cost function Quiz: Convexity of Cost function Quiz: Gradient Descent Assumptions of Linear

Regression Quiz: Assumptions of linear model Implementing Linear Regression Generalized Linear Models Quiz: Generalized Linear Models Introduction to Logistic Regression Quiz: Introduction to logistic regression Quiz: Logistic Regression Odds Ratio Implementing Logistic Regression Multiclass using Logistic Regression Quiz: Multi-Class Logistic Regression Challenges with Linear Regression Quiz: Challenges with Linear regression Introduction to Regularisation Quiz: Introduction to Regularization Implementing Regularisation Coefficient estimate for ridge and lasso (Optional) | 29 Project: Customer Churn Prediction Predicting whether a customer will churn or not | 30 Decision Tree Introduction to Decision Trees Quiz: Introduction to Decision Trees Purity in Decision Trees Quiz: Purity in Decision Trees Terminologies Related to Decision Trees Quiz: Terminologies Related to Decision Trees How to Select the Best Split Point in Decision Trees Quiz: How to Select the Best Split Point in Decision Trees Chi-Square Quiz: Chi-Square Information Gain Quiz: Information Gain Reduction in Variance Quiz: Reduction in Variance Optimizing Performance of Decision Trees Quiz: Optimizing Performance of Decision Trees Decision Tree Implementation | 31 Feature Engineering Introduction to Feature Engineering Quiz: Introduction to feature engineering Exercise on Feature Engineering Overview of the module Feature Transformation Quiz: Feature Transformation Feature Scaling Quiz: Feature Scaling Feature Encoding Quiz: Feature Encoding Combining Sparse classes Quiz: Combining Sparse classes Feature Generation: Binning Quiz: Feature Generation- Binning Feature Interaction Quiz: Feature Interaction Generating Features: Missing Values Frequency Encoding Quiz: Frequency Encoding Feature Engineering: Date Time Features Implementing DateTime Features Quiz: Implementing DateTime Features Automated Feature Engineering : Feature Tools Implementing Feature tools Quiz: Implementing Feature Tools | 32 Project: NYC Taxi Trip Duration prediction Exploring the NYC dataset Predicting the NYC taxi trip duration Predicting the NYC taxi trip duration | 33 Feedback Share Your Feedback about the course. Would you recommend this course to your Friends.

Who Should Enroll:

No target audience info available

Duration:

No duration available

Rating:

No rating available

Level:

No level info available

Instructor:

N/A

Link:

https://courses.analyticsvidhya.com/courses/machine-learning-summer-training

Title: AI Ethics by Fractal

Description:

AI has a huge influence on our lives. From typing on our smartphones, to personalized recommendations on our favourite shopping websites, intelligent machines are everywhere. Our interactions with technology have become more personalized, but with humans ultimately behind these creations, the question is: where does the responsibility lie? Why and how should we begin the AI ethics conversation at Fractal?

Learning plan:

The video course is followed by MCQ test to gauge the depth of your understanding and help you retain your learning.

Learners can take the e-learning and complete the MCQ Test activity post viewing the video.

Curriculum:

1 AI Ethics Introduction and need for Ethical AI FREE PREVIEW Fractal's Ethical AI Principles Framework: Behaviors and toolkits overview Next Steps & Further Learning Test Your Self

Who Should Enroll:

No target audience info available

Duration:

No duration available

Rating:

No rating available

Level:

No level info available

Instructor:

N/A

Link:

https://courses.analyticsvidhya.com/courses/ai-ethics-fractal

Title: A Comprehensive Learning Path to Become a Data Engineer in 2022

Description:

Where do I begin? Data Engineering is such a huge field - where do you even start learning about Data Engineering? These are career-defining questions often asked by data engineering aspirants. There are a million resources out there to refer but the learning journey can be quite exhausting if you don't know where to start.

Don't worry, we are here to help you take your first steps into the world of data engineering! Here's the learning path for people who want to become a data engineer in 2022. We have arranged and compiled all the best resources in a structured manner so that you have a unified resource to become a successful data engineer.

Moreover, we have added the most in-demand skills for the year 2022 for data engineers including storytelling, model deployment, and much more along with exercises and assignments. Want to become a data engineer this year, but confused about where to start and what to follow? This comprehensive learning path from Analytics Vidhya should provide you with all the answers you need!

Curriculum:

1 Overview of Learning Path 2022 Overview of Learning Path Month-on-Month Plan AI&ML Blackbelt Plus Program (Sponsored) | 2 January 2022: Learn Programming Overview of the Course A brief introduction to Python Introduction to Python Test Installing Python Become a BlackBelt in Data Science Theory of Operators Exercise Understanding

Operators in Python Operators Test Understanding variables and data types Variable Test Variables and Data Types in Python Exercise Understanding Conditional Statements Exercise Implementing Conditional Statements in Python Conditional Statements test Understanding Looping Constructs Exercise Implementing Looping Constructs in Python Looping Constructs test Understanding Functions Implementing Functions in Python Functions test A brief introduction to data structure Data Structure test Understanding the concept of Lists Lists test Implementing Lists in Python Exercise Understanding the concept of Dictionaries Exercise Implementing Dictionaries in Python Dictionaries test Understanding the concept of Standard Libraries Libraries test Reading a CSV File in Python - Introduction to Pandas Reading a CSV file in Python: Implementation Reading a csv file in Python test Understanding dataframes and basic operations DataFrames and basic operations test Reading dataframes and conduct basic operations in Python Reading dataframes and conduct basic operations in Python Test Indexing a Dataframe Indexing DataFrames test Exercise Sorting Dataframes Merging Dataframes Quiz: Sorting and Merging dataframes Apply function Aggregating data Quiz: Apply function and Aggregating data Basics of Matplotlib Data Visualization using Matplotlib Quiz: Matplotlib Basics of Seaborn Data Visualization using Seaborn Quiz: Seaborn Regular Expressions Understanding Regular Expressions Quiz: Regular Expressions Regular Expressions in Python Quiz: Regular Expressions in Python Cheatsheet for Python Instructions Quiz Python Coding Challenge Test your Skills: Python Poll Where to go from here? | 3 February 2022: Learn Relational Databases Plan for February 2022 1.1 Introduction FREE PREVIEW 1.2 Why do we need databases? FREE PREVIEW 1.3 What is a database? FREE PREVIEW 1.4 Some properties of a Good Database FREE PREVIEW 1.5 Types of Databases 1.6 How data is Stored in Relational Databases 1.7 How data is stored in NoSQL databases 1.8 Companies using MySQL FREE PREVIEW Exercise 1 Course Handouts 2.1 Introduction 2.2 Architecture: Client and Server 2.3 MySQL Distributions 2.4 Local Installation on Mac 2.5 Local Installation on Linux 2.6 Local Installation on Windows 2.7 Licensing 2.8 Accessing a remote MySQL server 2.9 Graphical user interfaces Exercise 2 SQL - Installation Guide 3.1 Introduction 3.2 What exactly is SQL? 3.3 History of SQL 3.4 Connecting to MySQL 3.5 Types of Commands - DDL (Creation/ Deletion/ Updating of Schema 3.6 Types of Commands - DML (Manipulating data in tables) 3.7 Types of Commands - DCL (Managing Access control) 3.8 Exploring databases 3.9 Creating tables 3.10 Inserting data in tables 3.11 SELECT Statement - Introduction 3.12 Datatypes in MySQL 3.13 NULL vs NOT NULL Exercise 3 4.1 Introduction 4.2 Update command - Concept 4.3 Update command - Example 4.4 Delete command - Concept 4.5 Delete command - Example 4.6 Describe command - Concept 4.7 Describe command - Example 4.8 Alter command - Concept

and Example Copy of Exercise 4 5.1 Introduction 5.2 Importing data from CSV to MySQL 5.3 Exporting data from MySQL to CSV 5.4 Backing up databases 5.5 Restoring databases Exercise 5 Importing and Exporting Datasets - Troubleshooting Guide 6.1 Introduction 6.2 Counting Rows and Items 6.3 Aggregation Functions - SUM, AVG, STDDEV 6.4 Extreme Values Identification - MIN, MAX 6.5 Slicing data 6.6 Limiting data 6.7 Sorting data 6.8 Filtering Patterns 6.9 Groupings, Rolling up data and Filtering in Groups Exercise 6 7.1 Introduction 7.2 Data Eyeballing 7.3 Data Dictionary 7.4 Questions we need answers of 7.5 Analyzing data and creating table structure 7.6 Loading data to our MySQL table 7.7 Data Analysis - Simple Queries 7.8 Data Analysis - Advanced Queries FIFA19 Players dataset (cleaned) for this Project 8.1 Introduction 8.2. The need for joins 8.3. Different type of joins 8.4. The Left Join - Concept 8.5. The Left Join - Practical Example 8.6. The Inner Join 8.7. The Cross Join 8.8. The Right Join 8.9. The Self Join Assignment: Share your learning and build your profile Exercise 9.1. Introduction 9.2. Introduction to Indexing 9.3. How indexing works (basics) 9.4. Relationships 9.5. Types of Relationships 9.6. Table Constraints - PRIMARY KEY, FOREIGN KEY, UNIQUENESS and AUTO INCREMENT Exercise 10.1 String functions - CONCAT 10.2 String functions - Case Conversion 10.3 String functions - Trimming Strings 10.4 String functions - Extracting Substrings 10.5 Date/ Time functions - Current date and time 10.6 Date/ Time functions - Extracting date and time from field 10.7 Date/ Time functions - Formatting date and time as Strings 10.8 Numeric functions SQL CheatSheet Exercise 11.1 Introduction 11.2 Setting up a virtual environment 11.3 Installing the required packages 11.4 Connecting to MySQL 11.5 Connecting to database table and pulling data 11.6 Querying the database- INSERT 11.7 Querying the database- DELETE 11.8 Querying the database- SEARCH 11.9 Querying the database- INDEXING 11.10 Notes and Resources Exercise | 4 March 2022: Fundamentals of Linux and Cloud Computing Basic Linux Commands Introduction to Cloud Computing Cloud Deployment Models Service Models Resources: Learn about AWS | 5 April 2022 : NoSQL Databases Creating Databases and Collections Inserting Documents Reading Documents The _id Field Importing and Exporting Data Backup and Restore MongoDB Databases Updating Documents Deleting Documents, Collections and Databases CRUD Operations in MongoDB Atlas Importing, Exporting and Working with MongoDB Atlas | 6 May 2022: Hadoop Ecosystem What is Big Data? Challenges with Big Data Applications of Big Data Distributed Systems | 7 June 2022: Data Warehousing What is Hive Features of Hive Working of Hive

Who Should Enroll:

No target audience info available

Duration:

No duration available

Rating:

No rating available

Level:

No level info available

Instructor:

N/A

Link:

https://courses.analyticsvidhya.com/courses/a-comprehensive-learning-path-to-become-a-data-engineer-in-2022

Title: Certified Business Analytics Program

Description:

With increase in data generated across the globe, the demand for Business Analytics professionals is rising continuously.

In short, aiming for a role in Business Analytics has never been a better career choice!

Certified Business Analytics Program aims to provide you all the tools and techniques, along with hands on experience you need to succeed as a Business Analytics professional.

This program covers tools like Excel, Tableau, SQL, Python and covers all the techniques like Statistics and Exploratory Data Analysis. The program also covers Predictive modeling and basics of Machine Learning.

More importantly, the program helps you prepare your Resume, prepares you for Business Analytics Interviews and provides one on one mentorship during the program. Business analytics is a thriving and in-demand field in the industry today. This comprehensive program consisting of multiple courses will teach you all you need to know about business

analytics, from tools like Python to machine learning algorithms!

Curriculum:

No curriculum available

Who Should Enroll:

No target audience info available

Duration:

No duration available

Rating:

No rating available

Level:

No level info available

Instructor:

Easy to understand content: The biggest challenge beginners face is that most of the courses explain business analytics as a complex subject. Not us! We simplify the subject with easy to understand videos and help you build intuition around business analytics concepts Experienced Instructors: All the material in this program was created by instructors who bring immense industry experience of business analytics. Combined between us, we have more than a decade of teaching experience Industry Relevant: All the courses in this program have been vetted by industry experts. This ensures relevance in the industry and enables you with the content which matters most Real life problems: All the projects in the Certified Business Analytics Program are modelled on real-world scenarios. We mean it when we say "industry relevant"!

Link:

https://courses.analyticsvidhya.com/bundles/certified-business-analytics-program

Title: Certified Machine Learning Master's Program (MLMP)

Description:

NYC Taxi Trip Duration Prediction

Customer Churn Prediction

Web Page Classification

Malaria Detection from blood cell Images

Predict Survivors from Titanic

Sales Prediction for Large Super Markets

Movie Recommender System

Article Recommender System

Online Book Recommender System

Market Basket Analysis for a Super Market

Forecasting the daily count of Airlines booking using historical data

Using Time series models for forecasting energy consumption

Forecasting web Traffic using Deep Learning Take the ultimate leap from a beginner to a complete machine learning professional with Certified Machine Learning Program spanning 5+ courses including Python and advanced algorithms in ML, and 12+ real-life projects.

Curriculum:

No curriculum available

Who Should Enroll:

No target audience info available

Duration:

No duration available

Rating:

No rating available

Level:

No level info available

Instructor:

N/A

Link:

https://courses.analyticsvidhya.com/bundles/certified-machine-learning-master-s-program-mlmp

Title: Certified Natural Language Processing Master's Program

Description:

Natural Language Processing (NLP) is one of the fastest growing field within Artificial Intelligence. It enables machines to understand information contained in any text.

NLP bridges the gap between the abstract but omnipresent human languages with concise and concrete programming languages. As more and more organizations invest in data - they would need NLP experts.

This comprehensive program empowers you to become an NLP practitioner, even if you are a beginner and have no prior knowledge of the concepts.

Download Brochure Natural Language Processing (NLP) is the science of teaching machines how to interpret text and

extract information from it. This program covers basics of Python, Machine Learning & NLP. It includes 17+ projects to prepare you for industry roles

Curriculum:

No curriculum available

Who Should Enroll:

No target audience info available

Duration:

No duration available

Rating:

No rating available

Level:

No level info available

Instructor:

N/A

Link:

https://courses.analyticsvidhya.com/bundles/certified-natural-language-processing-master-s-program

Title: Certified Computer Vision Master's Program

Description:

We have designed this certified program for Computer Vision enthusiasts like you who are looking for a place to start. Computer Vision is currently among the hottest fields in the industry. The demand for computer vision experts is outstripping the supply! So you've picked the perfect time to get into this field. This comprehensive program powers you to become a computer vision expert. The beauty of this program is that it assumes no prior knowledge of concepts. We

start from the ground up by learning the basics of Python, statistics, core machine learning algorithms & fundamentals of Deep Learning.

Once your base is rock solid, jump over to the Computer Vision using Deep Learning course. It is designed to give you a taste of how the underlying techniques work in current State-of-the-Art Computer Vision systems, and walks you through remarkable Computer Vision applications in a hands-on manner so that you can create such solutions on your own.

Object detection

Face detection

Image Classification

Image Segmentation

Image generation, and many others!

You can then combine your technical knowledge with the learning from the Ace Data Science Interviews course to land your dream job in data science & computer vision! The program consists of five comprehensive and rich courses curated exclusively by Analytics Vidhya.

Download Brochure Get ready to become the Next-Gen Computer Vision Wizard - Accelerate your career in Computer Vision with this comprehensive program!

Curriculum:

No curriculum available

Who Should Enroll:

No target audience info available

Duration:

No duration available

Rating:

No rating available

Level:

No level info available

Instructor:

N/A

Link:

https://courses.analyticsvidhya.com/bundles/certified-computer-vision-masters-program

Title: Applied Machine Learning - Beginner to Professional

Description:

Machine Learning is re-shaping and revolutionising the world and disrupting industries and job functions globally. It is no longer a buzzword - many different industries have already seen automation of business processes and disruptions from Machine Learning. In this age of machine learning, every aspiring data scientist is expected to upskill themselves in machine learning techniques & tools and apply them in real-world business problems.

Pre-requisites for the Applied Machine Learning course

This course requires no prior knowledge about Data Science or any tool.

Download Brochure This course provides you all the tools and techniques you need to apply machine learning to solve business problems. We will cover the basics of machine learning, how to build machine learning models, improve and deploy your machine learning models.

Curriculum:

1 Introduction to Data Science and Machine Learning Overview of Machine Learning / Data Science FREE PREVIEW Common Terminology used in Data Science FREE PREVIEW Applications of Data Science FREE PREVIEW | 2 Introduction to the Course Instructor Introduction FREE PREVIEW Overview of the Course FREE PREVIEW Course

Handouts | 3 Setting up your system Installation steps for Windows Installation steps for Linux Installation steps for Mac | 4 Introduction to Python Introduction to Python Introduction to Jupyter Notebook Download Python Module Handouts | 5 Variables and Data Types Introduction to Variables Implementing Variables in Python | 6 Operators Introduction to Operators Implementing Operators in Python Quiz: Operators | 7 Conditional Statements Introduction to Conditional Statements Implementing Conditional Statements in Python Quiz: Conditional Statements | 8 Looping Constructs Introduction to Looping Constructs Implementing Loops in Python Quiz: Loops in Python Break, Continue and Pass Statements Quiz: Break, Continue and Pass Statement | 9 Data Structures Introduction to Data Structures List and Tuple Implementing List in Python Quiz: Lists List - Project in Python Implementing Tuple in Python Quiz: Tuple Introduction to Sets Implementing Sets in Python Quiz: Sets Introduction to Dictionary Implementing Dictionary in Python Quiz: Dictionary Assignment: Data Structures Project: Personal Expense tracker | 10 String Manipulation Introduction to String Manipulation Quiz: String Manipulation | 11 Functions Introduction to Functions Implementing Functions in Python Quiz: Functions in Python Lambda Expression Quiz: Lambda Expressions Recursion Implementing Recursion in Python Quiz: Recursion Expert talk: Rajiv Shah Project: Hangman | 12 Modules, Packages and Standard Libraries Introduction to Modules Modules: Intuition Introduction to Packages Standard Libraries in Python User Defined Libraries in Python Quiz: Modules, Packages and Standard Libraries | 13 Handling Text Files in Python Handling Text Files in Python Quiz: Handling Text Files | 14 Introduction to Python Libraries for Data Science Important Libraries for Data Science Quiz: Important Libraries for Data Science | 15 Python Libraries for Data Science Basics of Numpy in Python Basics of Scipy in Python Quiz: Numpy and Scipy Basics of Pandas in Python Quiz: Pandas Basics of Matplotlib in Python Basics of Scikit-Learn in Python Basics of Statsmodels in Python Unlock the Data Science Universe with Andrew Engel: Insights, Innovations, and Beyond! | 16 Reading Data Files in Python Reading Data in Python Reading CSV files in Python Reading Big CSV Files in Python Quiz: Reading CSV files in Python Reading Excel & Spreadsheet files in Python Quiz: Reading Excel & Spreadsheet files in Python Reading JSON files in Python Quiz: Reading JSON files in Python Assignment: Reading Data Files in Python | 17 Preprocessing, Subsetting and Modifying Pandas Dataframes Subsetting and Modifying Data in Python Overview of Subsetting in Pandas I Overview of Subsetting in Pandas II Subsetting based on Position Subsetting based on Label Subsetting based on Value Quiz: Subsetting Dataframes Modifying data in Pandas Quiz: Modifying Dataframes Assignment: Subsetting and Modifying Pandas Dataframes | 18 Sorting and Aggregating Data in Pandas Preprocessing, Sorting and Aggregating Data Sorting the

Dataframe Quiz: Sorting Dataframes Concatenating Dataframes in Pandas Concept of SQL-Like Joins in Pandas Implementing SQL-Like Joins in Pandas Quiz: Joins in Pandas Aggregating and Summarizing Dataframes Preprocessing Timeseries Data Quiz: Preprocessing Timeseries Data Assignment: Sorting and Aggregating Data in Pandas | 19 Visualizing Patterns and Trends in Data Visualizing Trends & Pattern in Data Basics of Matplotlib Data Visualization with Matplotlib Quiz: Matplotlib Basics of Seaborn Data Visualization with Seaborn Quiz: Seaborn Assignment: Visualizing Patterns and Trends in Data | 20 Machine Learning Lifecycle 6 Steps of Machine Learning Lifecycle Introduction to Predictive Modeling | 21 Problem statement and Hypothesis Generation Defining the Problem statement Introduction to Hypothesis Generation Performing Hypothesis generation Quiz - Performing Hypothesis generation List of hypothesis Data Collection/Extraction Quiz - Data Collection/Extraction | 22 Importance of Stats and EDA Introduction to Exploratory Data Analysis & Data Insights Quiz - Introduction to Exploratory Data Analysis & Data Insights Role of Statistics in EDA Descriptive Statistics Inferential Statistics Quiz - Descriptive and Inferential Statistics | 23 Understanding Data Introduction to dataset Quiz - Introduction to dataset Reading data files into python Quiz - Reading data files into python Different Variable Datatypes Variable Identification Quiz - Variable Identification | 24 Probability Probability for Data Science Quiz - Probability for Data Science Basic Concepts of Probability Quiz - Basic Concepts of Probability Axioms of Probability Quiz - Axioms of Probability Conditional Probability Quiz - Conditional Probability | 25 Exploring Continuous Variable Data range for continuous variables Central Tendencies for continuous variables Spread of the data Central Tendencies and Spread of the data: Implementation Quiz: Central Tendencies and Spread of data KDE plots for continuous variable KDE plots : Implementation Overview of Distributions for Continuous Variables Normal Distribution Normality Check Skewed Distribution Skewness and Kurtosis Distributions for continuous variable Quiz: Distribution of Continuous variables Approaching Univariate Analysis Approaching Univariate Analysis: Numerical Variables Quiz: Univariate analysis for Continuous variables | 26 Exploring Categorical Variables Central Tendencies for categorical variables Understanding Discrete Distributions Discrete Distributions Demonstration Performing EDA on Catagorical Variables Quiz: Univariate Analysis for Categorical Variables | 27 Missing Values and Outliers Dealing with Missing values Understanding Outliers Identifying Outliers in data Identifying Outliers in data: Implementation Quiz: Identifying Outliers in datasets Quiz: Outlier treatment | 28 Central Limit theorem Important Terminologies Central Limit Theorem CLT: Implementation Quiz: Central Limit Theorem Confidence Interval and Margin of error | 29 Bivariate analysis - Introduction Introduction to Bivariate Analysis | 30 Continuous - Continuous Variables

Covariance Pearson Correlation Spearman's Correlation & Kendall's Tau Correlation versus Causation Tabular and Graphical Methods Performing Bivariate Analysis on Continuous - Continuous variables Quiz: Continuous-Continuous Variables | 31 Continuous Categorical Tabular and Graphical Methods Introduction to hypothesis Testing P-Value One Sample z-test Two Sampled z-test Quiz: Hypothesis Testing and Z scores T-Test T-Test vs Z-Test Quiz: T tests Performing Bivariate Analysis on Catagorical - Continuous variables | 32 Categorical Categorical Tabular and Graphical Methods Chi-Squared Test Quiz: Chi squared tests Bivariate Analysis for Categorical Categorical Variables | 33 Multivariate Analysis Multivariate Analysis Multivariate Analysis Implementation Project: EDA | 34 Assignments Understanding the NYC Taxi Trip Duration Problem Assignment: EDA | 35 Build Your First Predictive Model Introduction and Overview FREE PREVIEW Quiz: Introduction and Overview FREE PREVIEW Preparing the Dataset FREE PREVIEW Quiz: Preparing the dataset FREE PREVIEW Build a Benchmark Model: Regression FREE PREVIEW Quiz: Build a Benchmark Model - Regression Benchmark Model: Regression Implementation Quiz: Benchmark Model - Regression Implementation Build a Benchmark Model: Classification Quiz: Build a Benchmark Model - Classification Benchmark Model: Classification Implementation Quiz: Benchmark - Classification Implementation | 36 Evaluation Metrics Introduction to Evaluation Metrics Quiz: Introduction to Evaluation Metrics Confusion Matrix Quiz: Confusion Matrix Accuracy Quiz: Accuracy Alternatives of Accuracy Quiz: Alternatives of Accuracy Precision and Recall Quiz: Precision and Recall Thresholding Quiz: Thresholding AUC-ROC Quiz: AUC-ROC Log loss Quiz: Log loss Evaluation Metrics for Regression Quiz: Evaluation Metrics for Regression R2 and Adjusted R2 Quiz: R2 and Adjusted R2 | 37 Preprocessing Data Dealing with Missing Values in the Data Quiz: Dealing with missing values in the data Replacing Missing Values Quiz: Replacing Missing values Imputing Missing Values in data Quiz: Imputing Missing values in data Working with Categorical Variables Quiz: Working with categorical data Working with Outliers Quiz: Working with outliers Preprocessing Data for Model Building | 38 Build Your First ML Model: k-NN Introduction to k-Nearest Neighbours FREE PREVIEW Quiz: Introduction to k-Nearest Neighbours FREE PREVIEW Building a kNN model Quiz: Building a kNN model Determining right value of k Quiz: Determining right value of k How to calculate the distance Quiz: How to calculate the distance Issue with distance based algorithms Quiz: Issue with distance based algorithms Introduction to sklearn Implementing k-Nearest Neighbours algorithm Quiz: Implementing k-Nearest Neighbours algorithm | 39 Selecting the Right Model Introduction to Overfitting and Underfitting Models Quiz: Introduction to Overfitting and Underfitting Models Visualizing overfitting and underfitting using knn Quiz: Visualizing overfitting and

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Who Should Enroll:

No target audience info available

Duration:

No duration available

Rating:

No rating available

Level:

No level info available

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Quiz: Frontend of the Loan Eligibility application Deploying rule based model using streamlit Exercise: Deploying rule based model using Streamlit Deploying machine learning model using streamlit Exercise: Deploying machine learning model using Streamlit Build a Big Mart Sales Prediction Application Model Deployment Handout

Link:

https://courses.analyticsvidhya.com/courses/applied-machine-learning-beginner-to-professional

Title: Ace Data Science Interviews

Description:

Are you trying to get into data science roles but getting rejected by employers? Are you scared of getting into data science interviews? Or don't know what to expect in data science interviews? This is just the course you need.

While you might know the tools and techniques in data science, clearing a data science interview might still prove very difficult. You need to show your problem solving skills and technical prowess in these data science interviews.

This course has been created based on hundreds of interviews we have taken, companies we have helped in data science interviews and several data science experts in the industry.

Key learnings and takeaways from "Ace Data Science Interviews" course:

Understand different roles existing in data science ecosystem(e.g.Data Scientist, Data Engineers, Data Analyst etc.)

Learn what skill sets required for each of these roles

Understand different types of Interviews which happen in Data Science Industry

Tips and tricks to Ace your Data Science Interviews

How to build your digital presence including LinkedIn and GitHub profile

Learn the process to create a professional experience for data science roles.

Framework to solve Guesstimates and case studies used in data science interviews

Downloadable Resources:

Infographic for 7 step process to "Ace Data Science Interviews"

e-book containing more than 240 interview questions from interviews in industry.

Interview Questions on machine learning, statistics, Model building, Machine Learning production, SQL

Checklist for your LinkedIn and GitHub profiles A comprehensive course covering different kinds of interviews in data science industry and how to ace these interviews. This includes technical interviews on data science / machine learning, case study interviews, guesstimate based interviews.

Curriculum:

1 Overview - Ace Data Science Interviews Instructor Introduction FREE PREVIEW Why did we create this course FREE PREVIEW How did we create this Course FREE PREVIEW Who should take this course FREE PREVIEW | 2 Overview - The 7 step Data Science Interviews process Overview - 7 step process FREE PREVIEW Infographic - The 7 Step Framework for Data Science Interviews | 3 Step 1 - Understanding Roles, skills, Interviews Framework Overview of Module 3 Overview of Different Roles Senior Roles in Data Science Mid-Management Roles in Data Science Individual Contributors in Data Science Overview of Different Types of Interviews Technical Interviews Assignments HR Assessment Business Case Studies Guesstimates Puzzles Different Interviews for Different Job Roles Exercise : Identify Roles | 4 Step 2 - Building Your Digital Presence 4.1 Building your Digital Presence Ace Data Science Interviews - GitHub Checklist Ace Data Science Interviews - LinkedIn Checklist | 5 Step 3 - Building Resume and Applying for Jobs 1. Importance of Resume 2. 6 Step Process for Crafting your Resume 3. Examples of Stand out Resumes 4. Live Resume Screening - Example 1 5. Live Resume Screening - Example 2 6. Live Resume Screening - Example 3 7. Overview of the Various Paths to Apply 8. Applying to Online Portals 9. Networking Based Applications 10. Work Based Applications | 6 Step 4 - Telephonic Interviews 1. Why Companies Ask for Telephonic Interviews 2. Telephonic Interview Checklist - BEFORE the Interview 3. Telephonic Interview Checklist - DURING the Interview 4. Telephonic Interview Checklist - POST the Interview 5. Additional Tips for Video Interviews Common Questions Interviewers Ask Questions you can Ask the Interviewer | 7 Step 5 - Assignments 1. Why Companies Hand Out Assignments 2. Assignments for Different Roles 3. Tips to Ace the Interview Round | 8 Step 6 - In Person Interview(s) 1. Overview of the Different Data Science Interview Types 2. Technical Interviews 3. Puzzle-Based Interview Rounds 4. Tips to Solve Puzzles 5. Cracking

In-Person Case Studies 6. Live In-Person Case Study - Example 1 7. Feedback on the Case Study (Example 1) 8. Live In-Person Case Study - Example 2 9. Feedback of the Case Study (Example 2) 10. Guesstimates 11. HR Round The Ultimate Handbook of Data Science Interview Questions Download: The Ultimate Handbook of Data Science Interviews Questions | 9 Step 7 - Post Interview Follow ups 1. Post-Interview Steps 2. Understanding the Different Post-Interview Steps Assignment: Share your learning and build your profile

Who Should Enroll:

No target audience info available

Duration:

No duration available

Rating:

No rating available

Level:

No level info available

Instructor:

1 Overview - Ace Data Science Interviews Instructor Introduction FREE PREVIEW Why did we create this course FREE PREVIEW How did we create this Course FREE PREVIEW Who should take this course FREE PREVIEW 2 Overview - The 7 step Data Science Interviews process Overview - 7 step process FREE PREVIEW Infographic - The 7 Step Framework for Data Science Interviews 3 Step 1 - Understanding Roles, skills, Interviews Framework Overview of Module 3 Overview of Different Roles Senior Roles in Data Science Mid-Management Roles in Data Science Individual Contributors in Data Science Overview of Different Types of Interviews Technical Interviews Assignments HR Assessment Business Case Studies Guesstimates Puzzles Different Interviews for Different Job Roles Exercise : Identify Roles 4 Step 2 - Building Your Digital Presence 4.1 Building your Digital Presence Ace Data Science Interviews - GitHub Checklist Ace Data Science Interviews - LinkedIn Checklist 5 Step 3 - Building Resume and Applying for Jobs 1. Importance of Resume 2. 6 Step Process for Crafting your Resume 3. Examples of Stand out Resumes 4. Live

Resume Screening - Example 1 5. Live Resume Screening - Example 2 6. Live Resume Screening - Example 3 7. Overview of the Various Paths to Apply 8. Applying to Online Portals 9. Networking Based Applications 10. Work Based Applications 6 Step 4 - Telephonic Interviews 1. Why Companies Ask for Telephonic Interviews 2. Telephonic Interview Checklist - BEFORE the Interview 3. Telephonic Interview Checklist - DURING the Interview 4. Telephonic Interview Checklist - POST the Interview 5. Additional Tips for Video Interviews Common Questions Interviewers Ask Questions you can Ask the Interviewer 7 Step 5 - Assignments 1. Why Companies Hand Out Assignments 2. Assignments for Different Roles 3. Tips to Ace the Interview Round 8 Step 6 - In Person Interview(s) 1. Overview of the Different Data Science Interview Types 2. Technical Interviews 3. Puzzle-Based Interview Rounds 4. Tips to Solve Puzzles 5. Cracking In-Person Case Studies 6. Live In-Person Case Study - Example 1 7. Feedback on the Case Study (Example 1) 8. Live In-Person Case Study - Example 2 9. Feedback of the Case Study (Example 2) 10. Guesstimates 11. HR Round The Ultimate Handbook of Data Science Interview Questions Download: The Ultimate Handbook of Data Science Interviews Questions 9 Step 7 - Post Interview Follow ups 1. Post-Interview Steps 2. Understanding the Different Post-Interview Steps Assignment: Share your learning and build your profile

Link:

https://courses.analyticsvidhya.com/courses/ace-data-science-interviews

Title: Writing Powerful Data Science Articles

Description:

"Either write something worth reading or do something worth writing." - Benjamin Franklin

The best way to learn any concept, especially in data science, is by writing about it. That not only helps you understand what you learned in more detail, but sharing it with the community helps others understand how a particular data science idea works.

But here's the thing - most people want to write, but just can't get past the initial challenges. This might sound familiar to a lot of people:

What should I write about?

Will anyone read my article?

How do I make my article stand out?

Should I even write?

If you've ever asked yourself these questions, you'll find the answers in this free crash course on how to write impactful and awesome data science articles! Are you looking to write and publish your data science article? Or perhaps you are looking for tips and tricks to improve your article's readability and viewership. This course on writing powerful data science articles is for you!

Curriculum:

1 Welcome to the Data Science Writing Crash Course! Why did we create this course? AI&ML Blackbelt Plus Program (Sponsored) | 2 Crash Course - How to Write Powerful Data Science Articles Session #1 - How to Write Powerful and Impactful Data Science Articles Session #2 - Writing Data Science Articles that Grab your Reader's Attention | 3 Expert Talk: Writing Powerful Data Science Articles with Parul Pandey Expert Talk: Parul Pandey on Writing Powerful Data Science Articles | 4 Next Steps... Congrats! Here's what's next

Who Should Enroll:

No target audience info available

Duration:

No duration available

Rating:

No rating available

Level:

No level info available

Instructor:

N/A

Link:

https://courses.analyticsvidhya.com/courses/writing-powerful-data-science-articles

Title: Machine Learning Certification Course for Beginners

Description:

Machine Learning is the science of teaching machines how to learn by themselves. Machine Learning is reshaping and revolutionizing the world and disrupting industries and job functions globally.

Machine learning is so extensive that you probably use it numerous times a day without knowing it. From unlocking your mobile phones using your face to giving your attendance using a biometric machine, machine learning is being used in almost every stage.

In this age of machine learning, every aspiring data scientist is expected to upskill themselves in machine learning techniques & tools and apply them to real-world business problems. In this free machine learning certification course, you will learn Python, the basics of machine learning, how to build machine learning models, and feature engineering techniques to improve the performance of your machine learning models.

Curriculum:

1 Overview of the Course Overview of the Course FREE PREVIEW Knowing each other FREE PREVIEW AI&ML Blackbelt Plus Program (Sponsored) | 2 Introduction to Data Science and Machine Learning Overview of Machine Learning / Data Science Common Terminology used in Data Science Applications of Data Science | 3 Setting up your system Installation steps for Windows Installation steps for Linux Installation steps for Mac | 4 Introduction to Python Introduction to Python Introduction to Jupyter Notebook Download Python Module Handouts | 5 Variables and Data Types Introduction to Variables Implementing Variables in Python | 6 Operators Introduction to Operators Implementing Operators in Python Quiz: Operators | 7 Conditional Statements Introduction to Conditional Statements Implementing Conditional Statements in Python Quiz: Conditional Statements | 8 Looping Constructs Introduction to Looping Constructs Implementing Loops in Python Quiz: Loops in Python Break, Continue and Pass Statements Quiz: Break, Continue and Pass Statement | 9 Data Structures Introduction to Data Structures List and Tuple Implementing List in

Pyhton Quiz: Lists List - Project in Python Implementing Tuple in Python Quiz: Tuple Introduction to Sets Implementing Sets in Python Quiz: Sets Introduction to Dictionary Implementing Dictionary in Python Quiz: Dictionary | 10 String Manipulation Introduction to String Manipulation Quiz: String Manipulation | 11 Functions Introduction to Functions Implementing Functions in Python Quiz: Functions in Python Lambda Expression Quiz: Lambda Expressions Recursion Implementing Recursion in Python Quiz: Recursion | 12 Modules, Packages and Standard Libraries Introduction to Modules Modules: Intuition Introduction to Packages Standard Libraries in Python User Defined Libraries in Python Quiz: Modules, Packages and Standard Libraries | 13 Handling Text Files in Python Handling Text Files in Python Quiz: Handling Text Files | 14 Introduction to Python Libraries for Data Science Important Libraries for Data Science Quiz: Important Libraries for Data Science | 15 Python Libraries for Data Science Basics of Numpy in Python Basics of Scipy in Python Quiz: Numpy and Scipy Basics of Pandas in Python Quiz: Pandas Basics of Matplotlib in Python Basics of Scikit-Learn in Python Basics of Statsmodels in Python | 16 Reading Data Files in Python Reading Data in Python Reading CSV files in Python Reading Big CSV Files in Python Quiz: Reading CSV files in Python Reading Excel & Spreadsheet files in Python Quiz: Reading Excel & Spreadsheet files in Python Reading JSON files in Python Quiz: Reading JSON files in Python | 17 Preprocessing, Subsetting and Modifying Pandas Dataframes Subsetting and Modifying Data in Python Overview of Subsetting in Pandas I Overview of Subsetting in Pandas II Subsetting based on Position Subsetting based on Label Subsetting based on Value Quiz: Subsetting Dataframes Modifying data in Pandas Quiz: Modifying Dataframes | 18 Sorting and Aggregating Data in Pandas Preprocessing, Sorting and Aggregating Data Sorting the Dataframe Quiz: Sorting Dataframes Concatenating Dataframes in Pandas Concept of SQL-Like Joins in Pandas Implementing SQL-Like Joins in Pandas Quiz: Joins in Pandas Aggregating and Summarizing Dataframes Preprocessing Timeseries Data Quiz: Preprocessing Timeseries Data | 19 Visualizing Patterns and Trends in Data Visualizing Trends & Pattern in Data Basics of Matplotlib Data Visualization with Matplotlib Quiz: Matplotlib Basics of Seaborn Data Visualization with Seaborn Quiz: Seaborn | 20 Machine Learning Lifecycle 6 Steps of Machine Learning Lifecycle Introduction to Predictive Modeling | 21 Problem statement and Hypothesis Generation Defining the Problem statement Introduction to Hypothesis Generation Performing Hypothesis generation Quiz - Performing Hypothesis generation List of hypothesis Data Collection/Extraction Quiz - Data Collection/Extraction | 22 Importance of Stats and EDA Introduction to Exploratory Data Analysis & Data Insights Quiz - Introduction to Exploratory Data Analysis & Data Insights Role of Statistics in EDA Descriptive Statistics Inferential Statistics Quiz - Descriptive and Inferential Statistics |

23 Build Your First Predictive Model Introduction and Overview FREE PREVIEW Quiz: Introduction and Overview FREE PREVIEW Preparing the Dataset FREE PREVIEW Quiz: Preparing the dataset FREE PREVIEW Build a Benchmark Model: Regression FREE PREVIEW Quiz: Build a Benchmark Model - Regression Benchmark Model: Regression Implementation Quiz: Benchmark Model - Regression Implementation Build a Benchmark Model: Classification Quiz: Build a Benchmark Model - Classification Benchmark Model: Classification Implementation Quiz: Benchmark - Classification Implementation | 24 Evaluation Metrics Introduction to Evaluation Metrics Quiz: Introduction to Evaluation Metrics Confusion Matrix Quiz: Confusion Matrix Accuracy Quiz: Accuracy Alternatives of Accuracy Quiz: Alternatives of Accuracy Precision and Recall Quiz: Precision and Recall Thresholding Quiz: Thresholding AUC-ROC Quiz: AUC-ROC Log loss Quiz: Log loss Evaluation Metrics for Regression Quiz: Evaluation Metrics for Regression R2 and Adjusted R2 Quiz: R2 and Adjusted R2 | 25 Preprocessing Data Dealing with Missing Values in the Data Quiz: Dealing with missing values in the data Replacing Missing Values Quiz: Replacing Missing values Imputing Missing Values in data Quiz: Imputing Missing values in data Working with Categorical Variables Quiz: Working with categorical data Working with Outliers Quiz: Working with outliers Preprocessing Data for Model Building | 26 Build Your First ML Model: k-NN Introduction to k-Nearest Neighbours FREE PREVIEW Quiz: Introduction to k-Nearest Neighbours FREE PREVIEW Building a kNN model Quiz: Building a kNN model Determining right value of k Quiz: Determining right value of k How to calculate the distance Quiz: How to calculate the distance Issue with distance based algorithms Quiz: Issue with distance based algorithms Introduction to sklearn Implementing k-Nearest Neighbours algorithm Quiz: Implementing k-Nearest Neighbours algorithm | 27 Selecting the Right Model Introduction to Overfitting and Underfitting Models Quiz: Introduction to Overfitting and Underfitting Models Visualizing overfitting and underfitting using knn Quiz: Visualizing overfitting and underfitting using knn Selecting the Right Model What is Validation? Quiz: What is Validation Understanding Hold-Out Validation Quiz: Understanding Hold-Out Validation Implementing Hold-Out Validation Quiz: Implementing Hold-Out Validation Understanding k-fold Cross Validation Implementing k-fold Cross Validation Quiz: Understanding k-fold Cross Validation Quiz: Implementing k-fold Cross Validation Bias Variance Tradeoff Quiz: Bias Variance Tradeoff | 28 Linear Models Introduction to Linear Models Quiz: Introduction to linear model Understanding Cost function Quiz: Understanding Cost function Understanding Gradient descent (Intuition) Maths behind gradient descent Convexity of cost function Quiz: Convexity of Cost function Quiz: Gradient Descent Assumptions of Linear Regression Quiz: Assumptions of linear model Implementing Linear Regression Generalized Linear Models Quiz:

Generalized Linear Models Introduction to Logistic Regression Quiz: Introduction to logistic regression Quiz: Logistic Regression Odds Ratio Implementing Logistic Regression Multiclass using Logistic Regression Quiz: Multi-Class Logistic Regression Challenges with Linear Regression Quiz: Challenges with Linear regression Introduction to Regularisation Quiz: Introduction to Regularization Implementing Regularisation Coefficient estimate for ridge and lasso (Optional) | 29 Project: Customer Churn Prediction Predicting whether a customer will churn or not | 30 Decision Tree Introduction to Decision Trees Quiz: Introduction to Decision Trees Purity in Decision Trees Quiz: Purity in Decision Trees Terminologies Related to Decision Trees Quiz: Terminologies Related to Decision Trees How to Select the Best Split Point in Decision Trees Quiz: How to Select the Best Split Point in Decision Trees Chi-Square Quiz: Chi-Square Information Gain Quiz: Information Gain Reduction in Variance Quiz: Reduction in Variance Optimizing Performance of Decision Trees Quiz: Optimizing Performance of Decision Trees Decision Tree Implementation | 31 Feature Engineering Introduction to Feature Engineering Quiz: Introduction to feature engineering Exercise on Feature Engineering Overview of the module Feature Transformation Quiz: Feature Transformation Feature Scaling Quiz: Feature Scaling Feature Encoding Quiz: Feature Encoding Combining Sparse classes Quiz: Combining Sparse classes Feature Generation: Binning Quiz: Feature Generation- Binning Feature Interaction Quiz: Feature Interaction Generating Features: Missing Values Frequency Encoding Quiz: Frequency Encoding Feature Engineering: Date Time Features Implementing DateTime Features Quiz: Implementing DateTime Features Automated Feature Engineering : Feature Tools Implementing Feature tools Quiz: Implementing Feature Tools | 32 Project: NYC Taxi Trip Duration prediction Exploring the NYC dataset Predicting the NYC taxi trip duration Predicting the NYC taxi trip duration

Who Should Enroll:

No target audience info available

Duration:

6 Hours

Rating:

4.8/5

Level:

Beginner

Instructor:

Instructor Kunal Jain, Founder & CEO, Analytics Vidhya Kunal has 15+ years of experience in the field of Data Science and is the founder and CEO of Analytics Vidhya- the world's 2nd largest Data Science community.

Link:

https://courses.analyticsvidhya.com/courses/Machine-Learning-Certification-Course-for-Beginners

Title: Data Science Career Conclave - Transition to Data Science!

Description:

It feels like half the world wants to move into data science these days, with spectacular perks and a plethora of openings on offer in the industry. Organizations are investing heavily in data science talent to stay or move ahead of their competitors. As a data science aspirant, you couldn't have picked a better time to change your career!

But this comes with its own set of challenges. We are often asked by folks about how they should transition into data science. People from all sorts of backgrounds - IT, Sales, Finance, HR, Healthcare, etc. - they all want a piece of the data science pie.

In this exclusive course called the "Data Science Career Conclave", Analytics Vidhya has brought together leading data science experts to share their view on a broad range of data science career topics.

What is being covered in this Data Science Career Conclave?

As we said, a broad range of topics related to transitioning into a data science career. Here's a brief list of topics you can look forward to:

Different Roles in Data Science - Which Role is Right for You? - by Mathangi Sri

What are Hiring Managers Really Looking For? - by Kiran R

How to Build your Digital Profile for Data Science - by Dipanjan Sarkar

Panel Discussion: How can you Transition into Data Science in 12 Months? Here's the perfect course to help you get all your data science career queries answered. Top data science experts expound on what they look for in a data science professional and how you can build those skills.

Curriculum:

1 Career Conclave Introduction to the Career Conclave Different Roles in Data Science - Which Role is Right For You? What are Hiring Managers Really Looking For? How to Build your Digital Profile for Data Science Panel Discussion: How can you Transition into Data Science in 12 Months? AI&ML Blackbelt Plus Program (Sponsored)

Who Should Enroll:

No target audience info available

Duration:

No duration available

Rating:

No rating available

Level:

No level info available

Instructor:

N/A

Link:

https://courses.analyticsvidhya.com/courses/data-science-career-conclave

Title: Top Data Science Projects for Analysts and Data Scientists

Description:

This is a very common question interviewers ask in data science interviews. We have conducted hundreds of these

interviews for both data analyst and data scientist roles and this is quite often the jackpot question. This is especially true if you're a fresher or a relative newcomer to data science.

Just doing courses or attaining certifications isn't good enough. Almost everyone we know holds certifications in various aspects of data science. It adds no value to your resume if you don't combine it with practical experience.

And that's where open-source data science projects play such a key role! Kick-start your career in data science with our data science courses and projects including learning on projects covering machine learning, computer vision, deep learning, natural language processing, reinforcement learning & data engineering.

Curriculum:

1 Welcome to the course! About the Data Science Projects Course AI&ML Blackbelt Plus Program (Sponsored) | 2 Machine Learning Projects Machine Learning Visuals - A Brilliant Way to Communicate PandaPy - Your New Favorite Python Library | 3 Deep Learning Projects VisualDL Real-Time Audio Analysis using PyAudio OpenAI's Jukebox: A Generative Model for Music Graph Neural Networks in TensorFlow 2.0 | 4 Computer Vision Projects Facebook AI's Detectron Caire - Image Resizing AlphaPose FastPhotoStyle Facebook AI's DEtection TRansformer (DETR) Real-Time Image Animation Convert Any Image into a 3D Photo Transform an Image into a Cartoon Illustration One-Shot Multi-Object Tracking GAN Compression StyleGAN2 - A New State-of-the-Art GAN! Real-Time Person Removal using TensorFlow.js Computer Vision Basics in Microsoft Excel | 5 Natural Language Processing (NLP) Projects Open AI's GPT-3 NLP Paper Summaries Google's ELECTRA Reformer - The Efficient Transformer in PyTorch | 6 Reinforcement Learning Projects DeepReinforcementLearning Minigo | 7 Data Engineering Projects The Goodreads Machine Learning Pipeline Awesome Software Engineering for Machine Learning | 8 Other Data Science Projects TextShot ShyNet - Privacy-Friendly and Cookie-Free Web Analytics Coronavirus Time Series Data Google Brain AutoML ggbump - Data Visualization in R! Google Earth Engine - 300+ Jupyter Notebooks to Analyze Geospatial Data AVA - Automated Visual Analytics

Who Should Enroll:

No target audience info available

Duration:

No duration available

Rating:

4.6/5

Level:

Advanced

Instructor:

N/A

Link:

https://courses.analyticsvidhya.com/courses/top-data-science-projects-for-analysts-and-data-scientists

Title: Getting Started with Git and GitHub for Data Science Professionals

Description:

Ever heard of version control? It is one of the most important concepts in a data scientist's daily role - and yet most newcomers and beginners haven't even come across it! This is a fallacy you must overcome as soon as possible.

You need to understand how to navigate through Git and GitHub if you want to make it as a data science professional. While a lot of folks know about these tools (having used them for cloning open source code from Google Research and other top data science organizations), they never really understand their real purpose.

The beauty of version control will be akin to a revelation. The way you can create a remote project and have all your team members work on different features parallelly yet independently but still have a stable running code at the end of the day - priceless! A lot of the problem we face in data science while working remotely and independently will be erased with a quick understanding of Git and GitHub.

Yes, this course really is that important! Upskill your data science acumen with Analytics Vidhya's Github course for data scientists that empowers you with learning the value and the ins and out's of Git and GitHub and using Git and GitHub to make your data science projects easier to track.

Curriculum:

1 Getting Familiar with Git and Github What is Git? What is Github? AI&ML Blackbelt Plus Program (Sponsored) | 2 Understand Git Terminology What is a Repository? Understand Cloning Let's Commit! Understanding Push Understanding Pull | 3 Get Started with Git Install Git in your system Let's Initialize Git! Configure Git in your system Committing files in Git View Logs in Git | 4 Going Remote - Get started with Github Create Remote Repository Add Git Remote to Your Repository Push using Git Cloning a GitHub Repository Branching and Merging Pull using Git | 5 What's next? Forking and contributing to the world

Who Should Enroll:

No target audience info available

Duration:

No duration available

Rating:

No rating available

Level:

No level info available

Instructor:

N/A

Link:

https://courses.analyticsvidhya.com/courses/getting-started-with-git-and-github-for-data-science-professionals

Title: Machine Learning Starter Program

Description:

We generate more than 2.5 quintillion bytes of data every day - and companies across the globe are hiring data scientists to make sense of this data.

A data scientist's job is one of the most sought-after in the 21st century. Companies are increasingly looking for professionals with a variety of skills in Machine Learning. And that's what we are here to give you via our Machine Learning Starter Program.

This is the perfect starting point to ignite your fledgling machine learning career and take a HUGE step towards your dream data scientist role. Step-by-step online program to learn the basics of Machine Learning with focus on concepts as well as practical problem solving. Ideal for beginners who want to start their journey in Machine Learning.

Curriculum:

No curriculum available

Who Should Enroll:

No target audience info available

Duration:

No duration available

Rating:

No rating available

Level:

No level info available

Instructor:

Easy to understand Content Experienced Instructors Industry Relevant

Link:

https://courses.analyticsvidhya.com/bundles/machine-learning-starter-program

Title: Data Science Hacks, Tips and Tricks

Description:

The Data Science Hacks, Tips and Tricks course is your one stop destination to become a better and more efficient data scientist!

We have poured in our decades of experience with data science and programming (especially Python programming!), to provide you with time-saving hacks related to:

Python tips and tricks

Data exploration tips and tricks

Data preprocessing hacks

Efficient use of Jupyter notebooks

Python functions

Building predictive models (hacks to build machine learning models in no time!),

And much more!

We have created the Data Science hacks, tips and tricks course in a way that you can go through each hack as a separate module. Since the goal of the hacks, tips and tricks is to provide you with efficient code to solve problems, the videos are a demo of these hacks, tips and tricks. The videos are self-explanatory.

This free course by Analytics Vidhya covers a broad range of data science hacks, tips and tricks, including Python programming hacks, tips and tricks to ace data science tasks like data preprocessing and data exploration, and much more. Get started today! Learn key data science hacks, tips and tricks to become a better and more efficient data scientist. These data science hacks cover a wide range of data science topics like speeding up Python code, optimizing your data science algorithm and much more!

Curriculum:

1 Introduction to Data Science Hacks, Tips and Tricks Course About the Data Science Hacks, Tips and Tricks Course AI&ML Blackbelt Plus Program (Sponsored) | 2 Data Science Hack #1 - Resource Downloader Resource Downloader | 3 Data Science Hack #2 - Pandas Apply Pandas Apply | 4 Data Science Hack #3 - how to extract email addresses from

text? Extract E-mails from text | 5 Data Science Hack #4 - Pandas Boolean Indexing Pandas Boolean Indexing | 6 Data Science Hack #5 - Pandas Pivot Table Pandas Pivot Table | 7 Data Science Hack #6 - Splitting a String in Python str.split() | 8 Data Science Hack #7 - Transforming distributions to Normal Distributions Normal Distribution | 9 Data Science Hack #8 - Remove Emojis from text Remove Emojis from text | 10 Data Science Hack #9 - Elbow method for kNN classifier Elbow method for classifier | 11 Data Science Hack #10 - Pandas crosstab for quick exploratory analysis Pandas crosstab | 12 Data Science Hack #11 - Scaling features using MinMax Scaler MinMax Scaler | 13 Data Science Hack #12 - Feature Engineering for Date Time Features Feature engineering for time series data | 14 Data Science Hack #13 - Creating dummy test data using sklearn Dummy data for Linear Regression | 15 Data Science Hack #14 - Image Augmentation to increase size of Training data Image Augmentation | 16 Data Science Hack #15 - Fast Tokenization using Hugging Face Tokenize by Hugging Face | 17 Data Science Hack #16 - Stratified sampling using sklearn Stratify - Splitting data proportionately | 18 Data Science Hack #17 - Reading html files using Pandas read_html Reading HTML file | 19 Data Science Hack #18 - Extract different data types into different dataframes Divide Continuous and categorical data | 20 Data Science Hack #19 - Pandas profiling for quick exploratory analysis Pandas Profilling | 21 Data Science Hack #20 - Change wide form dataframe to Long form dataframe Formatting of DataFrames | 22 Data Science Hack #21 - Magic functions in Jupyter notebooks Magic function- %history | 23 Data Science Hack #22 - Set Jupyter theme Setting up Dark Jupyter notebook theme | 24 Data Science Hack #23 Change Cell width in Jupyter notebook Use Jupyter-themes to change cell width | 25 Data Science Hack #24 - Change Datatype to datetime Use parse_dates in read_csv | 26 Data Science Hack #25 - Sharing jupyter notebook Use Jupyter nbviewer to share ipynb | 27 Data Science Hack #26 - Visualize Decision Tree Decision Tree Plotting | 28 Data Science Hack #27 - Invert Dictionary in Python Reversing Dictionary | 29 Data Science Hack #28 Visualize Interactive plot Interactive Plot using cufflinks | 30 Data Science Hack #29 - Write python file directly from jupyter notebook cell Using %%writefile and %run magic functions | 31 Data Science Hack #31 Feature Selection Feature Selection using Sklearn's SelectFromModel | 32 Data Science Hack #32 Convert string into characters Easiest way to convert string into characters | 33 Data Science Hack #33 Apply pandas in parallel Pandarellel - Pandas in parallel | 34 Data Science Hack #34 Convert Date format Date Parser | 35 Data Science Hack #35 Make images of same size Resize Images | 36 Data Science Hack #36 Regex testing and debugging Regex 101

Who Should Enroll:

No target audience info available

Duration:

No duration available

Rating:

No rating available

Level:

No level info available

Instructor:

N/A

Link:

https://courses.analyticsvidhya.com/courses/data-science-hacks-tips-and-tricks

Title: Introduction to Business Analytics

Description:

Getting Started with Business Analytics

What is Business Analytics? Why has it become so popular recently? What are some of the popular applications of Business Analytics? And more importantly, how can you get started with learning Business Analytics from scratch?

With growth in digitisation, Business Analytics is ubiquitous right now. Organizations are splurging to integrate data science solutions in their daily processes. This is where they need Business Analysts.

Why pursue Business Analytics:

Data is ubiquitous! Organizations need people who can use Business Analytics tools and techniques to make sense of this data.

It is one of the hottest field in the industry right now

There are so many Business Analytics tools and techniques which can be applied to solve business problems. Keep learning, keep growing!

The potential of Business Analytics is limitless - spanning across industries, roles and functions Business analytics is thriving - and so is its role in forward-thinking organizations around the world. The demand for business analytics professionals is growing multifold - and now is the time to start working towards your desired career.

Curriculum:

1 What is Business Analytics? What is Business Analytics? Quiz: What is Business Analytics You just joined an exicting startup! Quiz - Map the Job families Data Scientist vs. Data Engineer vs. Business Analyst Quiz - Map the responsibilities Sample problems and projects - Business Analytics vs. Data Science Quiz: Sample problems and Projects - Business Analysts vs. Data Scientits A few more things - Business Analytics vs. Data Science Career in Business Analytics Knowing Each other AI&ML Blackbelt Plus Program (Sponsored) | 2 Spectrum of Business Analytics Terms related to Business Analytics Management Information Systems (MIS) Detective Analysis Business Intelligence Predictive Modeling Artificial Intelligence and Machine Learning What kind of problems do Business Analysts work on? | 3 Skills Required for Business Analytics and Roadmap of Business Analytics Program Skills Required in Business Analytics Roles Download the Roadmap for Certified Business Analytics Program (CBAP) Bonus Section - Logistics of Certified Business Analytics Program from Analytics Vidhya | 4 Case study: Ezine Publishing Overview - Case study - Ezine Publishing Understanding Business Quiz: Identify Focus Categories Quiz: Getting Granular with traffic data Quiz - Identify effective channel Quiz - Maximize Revenue Quiz - Target Customers Quiz: Traffic Distribution Quiz - Advertisements Where to go from here?

Who Should Enroll:

No target audience info available

Duration:

1 Hour

Rating:

4.6/5

Level:

Beginner

Instructor:

Instructor Kunal Jain, Founder & CEO, Analytics Vidhya Kunal has 15+ years of experience in the field of Data Science and is the founder and CEO of Analytics Vidhya- the world's 2nd largest Data Science community.

Link:

https://courses.analyticsvidhya.com/courses/introduction-to-analytics

Title: Introduction to PyTorch for Deep Learning

Description:

Welcome to the world of PyTorch - a deep learning framework that has changed and re-imagined the way we build deep learning models.

PyTorch was recently voted as the favorite deep learning framework among researchers. It has left TensorFlow behind and continues to be the deep learning framework of choice for many experts and practitioners.

PyTorch is super flexible and is quite easy to grasp, even for deep learning beginners. If you work on deep learning and computer vision projects, you'll love working with PyTorch. PyTorch is a popular and leading deep learning framework. But what exactly is PyTorch? How does PyTorch work? How can you use PyTorch to build deep learning models? This PyTorch tutorial course will help you answer these questions in detail.

Curriculum:

1 What is PyTorch? Getting Started with PyTorch Why should we use PyTorch? A word from the creators of PyTorch Tensors in PyTorch Mathematical Operations in PyTorch(vs. NumPy) Matrix Operations in PyTorch(vs. NumPy) Tensor Operations AI&ML Blackbelt Plus Program (Sponsored) | 2 Neural Networks Getting started with Neural Networks

Exercise : Getting started with Neural Networks Independent and Dependent Variables Understanding Forward Propagation Exercise : Forward Propagation Error and Reason for Error Exercise : Error and Reason for Error Gradient Descent Intuition Understanding Math Behind Gradient Descent Exercise : Gradient Descent Back Propagation Exercise : Back Propagation Summary of the Module | 3 Implementing a Neural Network in Pytorch Modules in PyTorch - Autograd Modules in PyTorch: Optim Modules in PyTorch: nn Implementing a Neural Network from Scratch | 4 Deep Learning on Pytorch Case Study - Solving an Image Recognition problem in PyTorch Other Use cases for Deep Learning in PyTorch What Next?

Who Should Enroll:

No target audience info available

Duration:

1 Hour

Rating:

4.6/5

Level:

Beginner

Instructor:

N/A

Link:

https://courses.analyticsvidhya.com/courses/introduction-to-pytorch-for-deeplearning

Title: Introductory Data Science for Business Managers

Description:

The data science revolution is well and truly disrupting multiple and diverse industries. It has become the centerpiece of strategic decision making for organizations. Are you prepared to enable it for your business and your current role?

There is a serious shortage of decision-makers in the data science universe. While projects are springing up everywhere, the managers and leaders required to guide and mentor data science teams are rare to find.

Data Science for Managers is a thoughtfully curated program designed especially for decision-makers. Whether you're a manager, team leader, CxO or entrepreneur, you NEED to be data science educated. And this is the perfect program to get you there.

You will get access to three of the most comprehensive courses in this certified program. Enable yourself, and your business, to be ready for the Artificial Intelligence revolution!

Key Takeaways from Certified Program: Introductory Data Science for Business Managers

Artificial Intelligence and Machine Learning for Business Leaders: The ultimate Artificial Intelligence & Machine Learning course for CxOs, Managers, Team Leaders and Entrepreneurs

Introduction to Data Science: Every data science manager and leader should have a good hold on core data science techniques. This course will teach you the basics of the most popular data science language - Python, the basics of core statistics, and introduce you to the essential machine learning algorithms used in businesses today

Tableau 2.0 - Master Tableau from Scratch: Convert your data into actionable insights, create dashboards to impress your clients, and learn Tableau tips, tricks, and best practices for your analytics, business intelligence or data science role!

Why you should take this certified program?

Upskill yourself for the AI Revolution: Artificial Intelligence has already started making a huge impact in various industries, roles and functions. The time to upskill yourself and become familiar with artificial intelligence and machine learning is NOW. This comprehensive program will enable you to do just that.

Easy to understand content: Understanding data science concepts can be difficult. Especially if you're a mid or late-career transitioner coming from a non-technical background. That's why all the courses in this program have been curated and designed for people from all walks of life. We don't assume anything - this is data science from scratch.

Experienced Instructors: All the material in this program was created by instructors who bring immense industry experience of data science. Combined among us, we have more than two decades of teaching experience.

Industry Relevant: All the courses in this program have been vetted by industry experts. This ensures relevance in the industry and enables you with the content which matters most.

Real life problems: All projects in the program are modelled on real-world scenarios. We mean it when we say "industry relevant"!

Prerequisites of Certified Program: Introductory Data Science for Business Managers

This program requires no past knowledge about Data Science or any tool. This program is meant for Business Managers to understand Data Science and Machine Learning and be able to apply them to solve their Business Problems

Curriculum:

No curriculum available

Who Should Enroll:

No target audience info available

Duration:

No duration available

Rating:

No rating available

Level:

No level info available

Instructor:

The data science revolution is well and truly disrupting multiple and diverse industries. It has become the centerpiece of strategic decision making for organizations. Are you prepared to enable it for your business and your current role? There is a serious shortage of decision-makers in the data science universe. While projects are springing up everywhere, the managers and leaders required to guide and mentor data science teams are rare to find. Data Science for Managers is a thoughtfully curated program designed especially for decision-makers. Whether you're a manager, team leader, CxO or entrepreneur, you NEED to be data science educated. And this is the perfect program to get you there. You will get access to three of the most comprehensive courses in this certified program. Enable yourself, and your business, to be ready for the Artificial Intelligence revolution! Key Takeaways from Certified Program: Introductory Data Science for Business Managers Artificial Intelligence and Machine Learning for Business Leaders: The ultimate Artificial Intelligence & Machine Learning course for CxOs, Managers, Team Leaders and Entrepreneurs Introduction to Data Science: Every data science manager and leader should have a good hold on core data science techniques. This course will teach you the basics of the most popular data science language - Python, the basics of core statistics, and introduce you to the essential machine learning algorithms used in businesses today Tableau 2.0 - Master Tableau from Scratch: Convert your data into actionable insights, create dashboards to impress your clients, and learn Tableau tips, tricks, and best practices for your analytics, business intelligence or data science role! Why you should take this certified program? Upskill yourself for the AI Revolution: Artificial Intelligence has already started making a huge impact in various industries, roles and functions. The time to upskill yourself and become familiar with artificial intelligence and machine learning is NOW. This comprehensive program will enable you to do just that. Easy to understand content:

Understanding data science concepts can be difficult. Especially if you're a mid or late-career transitioner coming from a non-technical background. That's why all the courses in this program have been curated and designed for people from all walks of life. We don't assume anything - this is data science from scratch. Experienced Instructors: All the material in this program was created by instructors who bring immense industry experience of data science. Combined among us, we have more than two decades of teaching experience. Industry Relevant: All the courses in this program have been vetted by industry experts. This ensures relevance in the industry and enables you with the content which matters most. Real life problems: All projects in the program are modelled on real-world scenarios. We mean it when we say "industry relevant"! Prerequisites of Certified Program: Introductory Data Science for Business Managers This program requires no past knowledge about Data Science or any tool.

Link:

https://courses.analyticsvidhya.com/bundles/introductory-data-science-for-business-managers

Title: Introduction to Natural Language Processing

Description:

Natural Language Processing is the art of extracting information from unstructured text. Learn basics of Natural Language Processing, Regular Expressions & text sentiment analysis using machine learning in this course. Natural Language Processing (NLP) is the art of extracting information from unstructured text. This course teaches you basics of NLP, Regular Expressions and Text Preprocessing.

Curriculum:

1 Module 1 : Introduction to Natural Language Processing Welcome to the Course About the Course Introduction to Natural Language Processing Exercise : Introduction to Natural Language Processing Python for Data Science (Optional) AI&ML Blackbelt Plus Program (Sponsored) | 2 Module 2: Learn to use Regular Expressions Welcome to Module Understanding Regular Expression Implementing Regular Expression in Python Exercise : Implementing Regular Expression in Python | 3 Module 3: First Step of NLP - Text Processing Welcome to Module Tokenization and Text Normalization Exercise : Tokenization and Text Normalization Exploring Text Data Part of Speech Tagging and Grammar Parsing Exercise : Part of Speech Tagging and Grammar Parsing Implementing Text Pre-processing Using

NLTK Exercise : Implementing Text Pre-processing Using NLTK Build a Basic ML Model for Text Classification | 4 Module 4: NLP Certification Exam NLP Exam | 5 Module 5: Where to go from here? Where to go from here?

Who Should Enroll:

No target audience info available

Duration:

5 Hours

Rating:

4.7/5

Level:

Beginner

Instructor:

N/A

Link:

https://courses.analyticsvidhya.com/courses/Intro-to-NLP

Title: Getting started with Decision Trees

Description:

What is a Decision Tree?

A Decision Tree is a flowchart like structure, where each node represents a decision, each branch represents an outcome of the decision, and each terminal node provides a prediction / label.

Why learn about Decision Trees?

Decision Trees are the most widely and commonly used machine learning algorithms.

Decision Trees can be used for solving both classification as well as regression problems.

Decision Trees are robust to Outliers, so if you have Outliers in your data - you can still build Decision Tree models without worrying about impact of Outliers on your model.

Decision Trees are easy to interpret and hence have multiple applications in different industries. Decision Tree algorithm is one of the most powerful algorithm in Machine Learning. Decision trees are used by beginners/ experts to build machine learning models. This course provides you everything about Decision Trees & their Python implementation.

Curriculum:

1 Getting Started with Decision Tree Introduction to Decision Tree Purity in Decision Trees Quiz: Purity in Decision Trees Terminologies Related to Decision Trees Quiz: Introduction to Decision Trees Terminologies Related to Decision Trees How to Select the Best Split Point in Decision Trees Quiz: How to Select the Best Split Point in Decision Trees Chi-Square Quiz: Chi-Square Information Gain Quiz: Information Gain Reduction in Variance Quiz: Reduction in Variance Optimizing Performance of Decision Trees Quiz: Optimizing Performance of Decision Trees Decision Tree Implementation Dataset: Decision Tree Implementation Where to go from here? AI&ML Blackbelt Plus Program (Sponsored)

Who Should Enroll:

No target audience info available

Duration:

No duration available

Rating:

No rating available

Level:

No level info available

Instructor:

N/A

Link:

https://courses.analyticsvidhya.com/courses/getting-started-with-decision-trees

Title: Introduction to Python

Description:

Do you want to enter the field of Data Science? Are you intimidated by the coding you would need to learn? Are you looking to learn Python to switch to a data science career?

You have come to just the right place!

Most industry experts recommend starting your Data Science journey with Python

Across biggest companies and startups, Python is the most used language for Data Science and Machine Learning Projects

Stackoverflow survey for 2019 had Python outrank Java in the list of most loved languages

Python is a very versatile language since it has a wide array of functionalities already available. The sheer range of functionalities might sound too exhaustive and complicated, you don't need to be well-versed with them all.

Most data scientists have a few go-to libraries for their daily tasks like:

for performing data cleaning and analysis - pandas

for basic statistical tools - numpy, scipy

for data visualization - matplotlib, seaborn Power up your career with the best and most popular data science language, Python. Leverage your Python skills to start your Data Science journey. This course is intended for beginners with no coding or Data Science background.

Curriculum:

1 Overview of the Course Overview of the Course AI&ML Blackbelt Plus Program (Sponsored) | 2 Introduction to Python A brief introduction to Python Introduction to Python Test Installing Python Become a BlackBelt in Data Science | 3

Understanding Operators Theory of Operators Exercise Understanding Operators in Python Operators Test | 4 Variables and Data Types Understanding variables and data types Variable Test Variables and Data Types in Python Exercise | 5 Conditional Statements Understanding Conditional Statements Exercise Implementing Conditional Statements in Python Conditional Statements test | 6 Looping Constructs Understanding Looping Constructs Exercise Implementing Looping Constructs in Python Looping Constructs test | 7 Functions Understanding Functions Implementing Functions in Python Functions test | 8 Data Structure A brief introduction to data structure Data Structure test | 9 Lists Understanding the concept of Lists Lists test Implementing Lists in Python Exercise | 10 Dictionaries Understanding the concept of Dictionaries Exercise Implementing Dictionaries in Python Dictionaries test | 11 Understanding Standard Libraries in Python Understanding the concept of Standard Libraries Libraries test | 12 Reading a CSV File in Python Reading a CSV File in Python - Introduction to Pandas Reading a CSV file in Python: Implementation Reading a csv file in Python test | 13 Data Frames and basic operations with Data Frames Understanding dataframes and basic operations DataFrames and basic operations test Reading dataframes and conduct basic operations in Python Reading dataframes and conduct basic operations in Python Test | 14 Indexing a Data Frame Indexing a Dataframe Indexing DataFrames test Exercise | 15 Data Manipulation and Visualization Sorting Dataframes Merging Dataframes Quiz: Sorting and Merging dataframes Apply function Aggregating data Quiz: Apply function and Aggregating data Basics of Matplotlib Data Visualization using Matplotlib Quiz: Matplotlib Basics of Seaborn Data Visualization using Seaborn Quiz: Seaborn | 16 Regular Expressions Understanding Regular Expressions Quiz: Regular Expressions Regular Expressions in Python Quiz: Regular Expressions in Python | 17 Cheatsheet for Python Cheatsheet for Python | 18 Evaluate Instructions Quiz Python Coding Challenge | 19 Feedback Poll | 20 Where to go from here? Where to go from here?

Who Should Enroll:

No target audience info available

Duration:

1 Hour

Rating:

4.8/5

Level:

Beginner

Instructor:

N/A

Link:

https://courses.analyticsvidhya.com/courses/introduction-to-data-science

Title: Loan Prediction Practice Problem (Using Python)

Description:

This course is designed for people who want to solve binary classification problems. Classification is a skill every Data Scientist should be well versed in.

In this course, we are solving a real life case study of Dream Housing Finance. The company deals in all home loans. They have a presence across all urban, semi-urban and rural areas. Customers first apply for a home loan after that company validates the customer's eligibility. The company wants to automate the loan eligibility process (real-time) based on customer detail provided while filling online application form.

By the end of the course, you will have a solid understanding of Classification problem and Various approaches to solve the probem This course is aimed for people getting started into Data Science and Machine Learning while working on a real life practical problem.

Curriculum:

1 Loan Prediction : Practice Problem Introduction to the Course Table of Contents Problem Statement Hypothesis Generation Exercise 2 | Discussion Getting the system ready and loading the data Understanding the Data Univariate Analysis Bivariate Analysis Missing Value and Outlier Treatment Evaluation Metrics for Classification Problems Model Building : Part I Logistic Regression using stratified k-folds cross validation Feature Engineering Model Building : Part II AI&ML Blackbelt Plus Program (Sponsored)

Who Should Enroll:

No target audience info available

Duration:

No duration available

Rating:

4.7/5

Level:

Intermediate

Instructor:

N/A

Link:

https://courses.analyticsvidhya.com/courses/loan-prediction-practice-problem-using-python

Title: Big Mart Sales Prediction Using R

Description:

Sales prediction is a very common real life problem that each company faces at least once in its life time. If done correctly, it can have a significant impact on the success and performance of that company.

In this course you will be working on the Big Mart Sales Prediction Challenge.

The course will equip you with the skills and techniques required to solve regression problems in R. You will be provided with sufficient theory and practice material to hone your predictive modeling skills. This course is aimed for people getting started into Data Science and Machine Learning while solving the Big Mart Sales Prediction problem.

Curriculum:

1 Big Mart Sales Overview of the Course Table of contents Problem Statement Hypothesis Generation Loading Packages and Data Understanding the Data Univariate Analysis Bivariate Analysis Missing Value Treatment Feature Engineering Encoding Categorical Variables PreProcessing Data Model Building Linear Regression Regularized Linear

Regression Random Forest XGBoost Summary AI&ML Blackbelt Plus Program (Sponsored)

Who Should Enroll:

No target audience info available

Duration:

No duration available

Rating:

4.6/5

Level:

Intermediate

Instructor:

N/A

Link:

https://courses.analyticsvidhya.com/courses/big-mart-sales-prediction-using-r

Title: Twitter Sentiment Analysis

Description:

What is Sentiment Analysis?

Sentiment Analysis or Opinion Mining is a technique used to analyse the emotion in a text. We can extract the attitude or the opinion of a piece of text and get insights on it.

In the context of machine learning, you can think of Sentiment Analysis as a Classification problem where the text can either have a positive sentiment, a negative sentiment or a neutral one.

What are the applications of Sentiment Analysis in the industry?

In the age of social media, it is extremely common to comment about

a movie you liked or

a book you didn't like or

a product you bought was not up to the mark.

Therefore, a lot of companies use sentiment analysis for their products since it provides direct feedback of the customer's opinion.

It is also important to detect and remove hateful content from social media and companies like Twitter, Facebook, etc. extensively use sentiment analysis on a daily basis.

On what kind of projects would I implement sentiment analysis?

There are a wide variety of projects where you can use Sentiment Analysis. Here are a couple of popular use cases:

Sentiment Analysis can not only be used for customer reviews or product feedback, but in other domains as well.

Analyzing the sentiments on social media on the US Elections, for example, gives useful insights on which candidates are favoured by the public and which are not.

For other interesting problems involving sentiment/emotion detection, you can visit: https://datahack.analyticsvidhya.com/contest/all/

What is the range of sentiments that can be observed and analysed?

In the earlier days of Natural language processing and Sentiment Analysis, the sentiments could hold only 2 or 3 values:

Positive or Negative, and Positive, Neutral or Negative.

However, with the advent of deep learning, we can now recognize the subtle emotions in a text as well.

This has made tasks like Sarcasm detection, fake news detection etc. popular in research areas of Natural language processing

Can I add this project to my resume and use it in my Interview?

Sentiment Analysis is one of the most popular applications of Machine Learning and Classification in Natural language processing

We also encourage you to take up more diverse datasets and apply sentiment analysis on them.

Sentiment Analysis is also one of the first projects you would learn in your Natural language processing journey and as such is commonly asked in interviews. What is sentiment analysis? Why is sentiment analysis so popular in data science? And how can you perform sentiment analysis? Find the answers to all these questions in this free course on Sentiment Analysis using Python!

Curriculum:

1 Twitter Sentiment Analysis (Using Python) Overview of the Course Understand the Problem Statement Table of Contents Loading Libraries and Data Data Inspection Data Cleaning Story Generation and Visualization from Tweets Bag-of-Words Features TF-IDF Features Word2Vec Features Modeling Logistic Regression Support Vector Machine (SVM) RandomForest XGBoost FineTuning XGBoost + Word2Vec Summary AI&ML Blackbelt Plus Program (Sponsored)

Who Should Enroll:

No target audience info available

Duration:

No duration available

Rating:

4.7/5

Level:

Intermediate

Instructor:

N/A

Link:

https://courses.analyticsvidhya.com/courses/twitter-sentiment-analysis

Title: Pandas for Data Analysis in Python

Description:

Pandas is one of the most popular Python libraries in data science. In fact, Pandas is among those elite libraries that draw instant recognition from programmers of all backgrounds, from developers to data scientists.

According to a recent survey by StackOverflow, Pandas is the 4th most used library/framework in the world. That is quite an achievement!

Pandas is the first library we import when we fire up our Jupyter notebooks ('import pandas as pd' is indelibly etched in our minds!). It is a super flexible tool that enables us to perform data analysis and data manipulation on Pandas dataframes in double-quick time. What is Pandas? How can you perform data analysis and data manipulation using Pandas in Python? Learn how to work with Pandas in this superb free course and master the most popular Python library in data science.

Curriculum:

1 Getting Started with Pandas Introduction to the Course Pandas Installation AI&ML Blackbelt Plus Program (Sponsored) | 2 Dataset Description Loan Prediction Big Mart Sales | 3 Read & Write Data using Pandas Understanding File System & shell commands Reading Excel & CSV files Writing Data using Pandas Quiz: Reading a csv file using Pandas | 4 Pandas Dataframes What are Pandas Dataframes & its operations? Selecting Columns & Rows in Pandas

(Indexing) Quiz: DataFrames and basic operations | 5 Data Exploration using Pandas Basic Descriptive Statistics using Pandas Plotting using Pandas Quiz: Data Exploration using Pandas | 6 Data Manipulation using Pandas Renaming Column using Pandas Sorting Data in Pandas DataFrame Binning using Pandas Handling Missing Values Apply Function in Pandas for Element wise Operations Quiz: Pandas Apply Function | 7 Aggregating data using Pandas Types of Aggregations in Pandas Aggregations using Pandas in action Quiz: Aggregations in Pandas | 8 Merging Data using Pandas Merging Data in Pandas Dataframes Quiz: Merging Data using Pandas | 9 Pandas Cheatsheet Pandas Cheatsheet

Who Should Enroll:

No target audience info available

Duration:

No duration available

Rating:

No rating available

Level:

No level info available

Instructor:

N/A

Link:

https://courses.analyticsvidhya.com/courses/pandas-for-data-analysis-in-python

Title: Support Vector Machine (SVM) in Python and R

Description:

Want to learn the popular machine learning algorithm - Support Vector Machines (SVM)? Support Vector Machines can be used to build both Regression and Classification Machine Learning models.

This free course will not only teach you basics of Support Vector Machines (SVM) and how it works, it will also tell you how to implement it in Python and R.

This course on SVM would help you understand hyperplanes and Kernel tricks to leave you with one of the most popular machine learning algorithms at your disposal. What is a Support Vector Machine (SVM) in machine learning? How does an SVM classifier work? How you can design an SVM classifier in Python and R? Learn all about Support Vector Machines (SVM) in this free course for data scientists!

Curriculum:

1 Introduction to Support Vector Machines What are Support Vector Machines? Why do we use SVM and how is it better? AI&ML Blackbelt Plus Program (Sponsored) | 2 How does SVM work? Non-linear Separation and Margins Hyperplanes in SVM Quiz: Support Vector Machine | 3 SVM Kernels and Hyperparameters Types of Kernels used in SVM Quiz: Kernel Tricks | 4 Implementing SVM in Python Hyperparameter tuning in SVM Implementing Support Vector Machine | 5 Implementing SVM in R How to implement Support Vector Machine Classifier in R? | 6 Challenges of SVM Drawbacks of SVM What next?

Who Should Enroll:

No target audience info available

Duration:

No duration available

Rating:

No rating available

Level:

No level info available

Instructor:

N/A

Link:

https://courses.analyticsvidhya.com/courses/support-vector-machine-svm-in-python-and-r

Title: Evaluation Metrics for Machine Learning Models

Description:

Evaluation metrics form the backbone of improving your machine learning model. Without these evaluation metrics, we would be lost in a sea of machine learning model scores - unable to understand which model is performing well.

Wondering where evaluation metrics fit in? Here's how the typical machine learning model building process works:

We build a machine learning model (both regression and classification included)

Get feedback from the evaluation metric(s)

Make improvements to the model

Use the evaluation metric to gauge the model's performance, and

Continue until you achieve a desirable accuracy

Evaluation metrics, essentially, explain the performance of a machine learning model. An important aspect of evaluation metrics is their capability to discriminate among model results.

If you've ever wondered how concepts like AUC-ROC, F1 Score, Gini Index, Root Mean Square Error (RMSE), and Confusion Matrix work, well - you've come to the right course! What are evaluation metrics in machine learning? What are the different types of evaluation metrics? How do you gauge and improve your machine learning model? This course will teach you all about evaluation metrics for machine learning models!

Curriculum:

1 Introduction Types of Machine Learning Why do we need Evaluation Metrics? AI&ML Blackbelt Plus Program

(Sponsored) | 2 Evaluation Metrics: Classification Confusion Matrix Quiz: Confusion Matrix Accuracy Quiz: Accuracy Alternatives of Accuracy Quiz: Alternatives of Accuracy Precision and Recall Quiz: Precision and Recall F-Score Thresholding AUC-ROC Quiz: AUC-ROC Log Loss Quiz: Log Loss Gini Coefficient | 3 Evaluation Metrics: Regression MAE and MSE RMSE and RMSLE Quiz: RMSE and RMSLE R2 and Adjusted R2 R2 and Adjusted R2 | 4 What Next? Cross-Validation The Way Forward

Who Should Enroll:

No target audience info available

Duration:

No duration available

Rating:

No rating available

Level:

No level info available

Instructor:

N/A

Link:

https://courses.analyticsvidhya.com/courses/evaluation-metrics-for-machine-learning-models

Title: Fundamentals of Regression Analysis

Description:

Linear regression and logistic regression are typically the first algorithms we learn in data science. These are two key concepts not just in machine learning, but in statistics as well.

Due to their popularity, a lot of data science aspirants even end up thinking that they are the only forms of regression! Or

at least linear regression and logistic regression are the most important among all forms of regression analysis.

The truth, as always, lies somewhere in between. There are multiple types of regression apart from linear regression:

Ridge regression

Lasso regression

Polynomial regression

Stepwise regression, among others.

Linear regression is just one part of the regression analysis umbrella. Each regression form has its own importance and a specific condition where they are best suited to apply.

Regression analysis marks the first step in predictive modeling. The different types of regression techniques are widely popular because they're easy to understand and implement using a programming language of your choice. What is regression analysis? What are the different types of regression? What's the difference between linear regression, logistic regression, ridge and lasso regression? This course on fundamentals of regression analysis will clear all your doubts!

Curriculum:

1 Welcome to the course! Welcome! | 2 Introduction to Regression What is Regression Analysis? Why do we use Regression? AI&ML Blackbelt Plus Program (Sponsored) | 3 Types of Regression How many types of regression techniques do we have? | 4 Linear Regression Introduction to Linear Models Understanding Cost function Understanding Gradient descent (Intuition) Maths behind gradient descent Convexity of cost function Assumptions of Linear Regression Implementing Linear Regression Generalized Linear Models | 5 Logistic Regression Introduction to Logistic Regression Odds Ratio Implementing Logistic Regression Multiclass using Logistic Regression Challenges with Linear Regression | 6 Ridge Regression What is Ridge Regression? Notebook | 7 Lasso Regression What is Lasso Regression? Implementation | 8 Selecting the Right Model How to select the right regression model? | 9 What next?

What Next?

Who Should Enroll:

No target audience info available

Duration:

No duration available

Rating:

No rating available

Level:

No level info available

Instructor:

N/A

Link:

https://courses.analyticsvidhya.com/courses/Fundamentals-of-Regression-Analysis

Title: Getting Started with scikit-learn (sklearn) for Machine Learning

Description:

Scikit-learn, or sklearn for short, is the first Python library we turn to when building machine learning models. Sklearn is unanimously the favorite Python library among data scientists. As a newcomer to machine learning, you should be comfortable with sklearn and how to build ML models, including:

Linear Regression using sklearn

Logistic Regression using sklearn, and so on.

There's no question - scikit-learn provides handy tools with easy-to-read syntax. Among the pantheon of popular Python

libraries, scikit-learn (sklearn) ranks in the top echelon along with Pandas and NumPy.

We love the clean, uniform code and functions that scikit-learn provides. The excellent documentation is the icing on the cake as it makes a lot of beginners self-sufficient with building machine learning models using sklearn.

In short, sklearn is a must-know Python library for machine learning. Whether you want to build linear regression or logistic regression models, decision tree or a random forest, sklearn is your go-to library. Scikit-learn (Sklearn) - the powerful Python library for machine learning. But what is sklearn? How does sklearn work? What kind of ML models can you build using sklearn? Find out in this course and build sklearn models!

Curriculum:

1 Welcome to the course! Welcome to this course | 2 scikit-learn in Python What is scikit-learn? Components of scikit-learn Community / Organizations using scikit-learn | 3 Use of Scikit-learn in Data Science Life Cycle Introduction to Data Science Life Cycle Scikit-learn for Data Preprocessing Treating missing values Treating Outliers Feature Engineering Dimensionality Reduction | 4 Use of Scikit-Learn in Model Building Introduction to Model Building and Evaluation Regression Classification Clustering | 5 Machine Learning pipeline using scikit-learn! Introduction Understanding Problem Statement Building a prototype model Data Exploration and Preprocessing Encode the categorical variables Scale the data Model Building Feature Importance Identifying features to build the ML pipeline Pipeline Design Building Pipeline Predict the Target | 6 Next Steps... Conclusion

Who Should Enroll:

No target audience info available

Duration:

No duration available

Rating:

No rating available

Level:

No level info available

Instructor:

N/A

Link:

https://courses.analyticsvidhya.com/courses/get-started-with-scikit-learn-sklearn

Title: Convolutional Neural Networks (CNN) from Scratch

Description:

Convolutional Neural Networks, or CNN as they're popularly called, are the go-to deep learning architecture for computer vision tasks, such as object detection, image segmentation, facial recognition, among others. CNNs have even been extended to the field of video analysis!

If you are picking one deep learning architecture to learn and are not sure where to start, you should go for convolutional neural networks. Deep learning enthusiasts and experts with CNN knowledge are being widely sourced in the industry.

It's your time to use this CNN skillset and shine! Convolutional neural networks, or CNNs, have taken the deep learning community by storm. These CNN models power deep learning applications like object detection, image segmentation, facial recognition, etc. Learn all about CNN in this course.

Curriculum:

1 Introduction to Neural Networks What is a Neural Network? Types of Neural Networks Prerequisites AI&ML Blackbelt Plus Program (Sponsored) | 2 Introduction to CNNs What is a Convolutional Neural Network? Why should you use a CNN | 3 Architecture of a CNN The Convolutional Layer The Pooling Layer The Ouput Layer Taking a step back: The bigger picture of CNNs | 4 Mathematics behind CNNs Transforming the data Forward Propagation Backpropagation | 5 Implementing a CNN Using NumPy Using Keras | 6 What Next? Implementing a CNN in PyTorch More projects with CNN

Who Should Enroll:

No target audience info available

Duration:

No duration available

Rating:

4.7/5

Level:

Advanced

Instructor:

N/A

Link:

https://courses.analyticsvidhya.com/courses/convolutional-neural-networks-cnn-from-scratch

Title: Dimensionality Reduction for Machine Learning

Description:

Have you worked on a dataset with more than a thousand features? How about 40,000 features? We are generating data at an unprecedented pace right now and working with massive datasets in machine learning projects is becoming mainstream.

This is where the power of dimensionality reduction techniques comes to the fore. Dimensionality reduction is actually one of the most crucial aspects in machine learning projects.

You can use dimensionality reduction techniques to reduce the number of features in your dataset without having to lose much information and keep (or improve) the model's performance. It's a really powerful way to deal with huge datasets, as you'll see in this course!

Every data scientist, aspiring established, should be aware of the different dimensionality reduction techniques, such as Principal Component Analysis (PCA), Factor Analysis, t-SNE, High Correlation Filter, Missing Value Ratio, among others.

So in this beginner-friendly course, you will learn the basics of dimensionality reduction and why you should know dimensionality reduction in machine learning. We will also cover 12 dimensionality reduction techniques! This course is

as comprehensive an introduction as you can get! Dimensionality reduction is a key concept in machine learning. This course covers several dimensionality reduction techniques that every data scientist should know, including Principal Component Analysis (PCA) and Factor Analysis, among others!

Curriculum:

1 Introduction to the Course Introduction AI&ML Blackbelt Plus Program (Sponsored) | 2 Introduction to Dimensionality Reduction What is Dimensionality Reduction? Why is Dimensionality Reduction required? Common Dimensionality Reduction Techniques | 3 Feature Selection Techniques Missing Value Ratio Missing Value Ratio Implementation Low Variance Filter Low Variance Filter Implementation High Correlation Filter Backward Feature Elimination Backward Feature Elimination Implementation Forward Feature Selection Forward Feature Selection Implementation Random Forest | 4 Factor Based Feature Extraction Techniques Introduction to the Module Factor Analysis Principal Component Analysis Independent Component Analysis | 5 Projection Based Feature Extraction Techniques Understanding Projection ISOMAP t- Distributed Stochastic Neighbor Embedding (t-SNE) UMAP

Who Should Enroll:

No target audience info available

Duration:

No duration available

Rating:

No rating available

Level:

No level info available

Instructor:

N/A

Link:

https://courses.analyticsvidhya.com/courses/dimensionality-reduction-for-machine-learning

Title: K-Nearest Neighbors (KNN) Algorithm in Python and R

Description:

K-Nearest Neighbor (KNN) is one of the most popular machine learning algorithms. As a newcomer or beginner in machine learning, you'll find KNN to be among the easiest algorithms to pick up.

And despite its simplicity, KNN has proven to be incredibly effective at certain tasks in machine learning.

The KNN algorithm is simple to understand, easy to explain and perfect to demonstrate to a non-technical audience (that's why stakeholders love it!). That's a key reason why it's widely used in the industry and why you should know how the algorithm works. A practical hands-on tutorial on the K-Nearest Neighbor (KNN) algorithm in both Python and R. This course covers everything you want to learn about KNN, including understanding how the KNN algorithm works and how to implement it.

Curriculum:

1 Introduction Welcome to the Course | 2 K-NEAREST NEIGHBOUR What is KNN? Applications of KNN | 3 Steps to Build a K-NEAREST NEIGHBOUR Model Steps to build a KNN model Determining right value of k How to Calculate distance? Issues with distance based algorithms | 4 Implementation in Python and R Implementation of KNN in Pyhton Implementation of KNN in R | 5 What's Next? More resources for you

Who Should Enroll:

No target audience info available

Duration:

No duration available

Rating:

No rating available

Level:

No level info available

Instructor:

N/A

Link:

https://courses.analyticsvidhya.com/courses/K-Nearest-Neighbors-KNN-Algorithm

Title: Ensemble Learning and Ensemble Learning Techniques

Description:

Ensemble learning is a powerful machine learning algorithm that is used across industries by data science experts. The beauty of ensemble learning techniques is that they combine the predictions of multiple machine learning models. You must have used or come across several of these ensemble learning techniques in your machine learning journey:- Bagging- Boosting- Stacking- Blending, etc. These ensemble learning techniques include popular machine learning algorithms such as XGBoost, Gradient Boosting, among others. You must be getting a good idea of how vast and useful ensemble learning can be! Ensemble learning is a powerful machine learning technique every data scientist should know. But what is ensemble learning? How does ensemble learning work? This course is the perfect starting point to learn all about ensemble learning.

Curriculum:

1 Introduction Intuition behind Ensemble Learning What is Ensemble Learning? What models will be covered in the course? Quiz: Introduction to Ensemble Learning AI&ML Blackbelt Plus Program (Sponsored) | 2 Basic Ensemble Learning Techniques Max Voting Averaging Weighted Average Quiz: Basic Ensemble Techniques | 3 Advanced Ensemble Learning Techniques Stacking Implementing Stacking Variants of Stacking Blending Bootstrap Sampling Quiz: Bootstrap Sampling | 4 Advanced Ensemble Learning: Bagging What is Bagging? Bagging Meta-Estimator Random Forest Quiz: Random Forest Hyper-parameters of Random Forest Quiz: Hyper-parameters of Random Forest Implementing Random Forest | 5 Advanced Ensemble Learning: Boosting Introduction to boosting What is Boosting?

Quiz: Introduction to Boosting Gradient Boosting Algorithm (GBM) Math Behind GBM Quiz: Gradient Boosting Algorithm Extreme Gradient Boosting (XGBoost) Implementing XGBoost Quiz: XGBoost AdaBoost: Adaptive Boosting Implementing AdaBoost Quiz: AdaBoost LightGBM CatBoost | 6 What next? Next Steps

Who Should Enroll:

No target audience info available

Duration:

No duration available

Rating:

No rating available

Level:

No level info available

Instructor:

N/A

Link:

https://courses.analyticsvidhya.com/courses/ensemble-learning-and-ensemble-learning-techniques

Title: Linear Programming for Data Science Professionals

Description:

Optimization is the way of life. We all have finite resources and time and we want to make the most of them. From using your time productively to solving supply chain problems for your company - everything uses optimization.

And that's where learning linear programming will make you a better data science professional.

We are solving optimization problems everyday - without realizing it. Think of how you distributed the chocolate among your peers or siblings - that's your way of optimizing the situation. On the other hand devising inventory and warehousing strategy for an e-tailer can be very complex. Millions of SKUs with different popularity in different regions to

be delivered in defined time and resources.

And linear programming helps us solve these optimization problems with ease and efficiency. As a data science professional, you are bound to come across these optimization problems that you will solve using linear programming.

Simply put, you should know what linear programming is, and the different methods to solve linear programming problems. The Linear Programming for Data Science Professionals' course will guide you on how to get started with linear programming (LP), the different components of LP, and how to solve linear programming problems using Excel, R and more!

Curriculum:

1 Introduction to Linear Programming How to Use the Mini-Course Template AI&ML Blackbelt Plus Program (Sponsored) | 2 Introduction Introduction to Linear Programming What is Linear Programming Formulating a problem - Let's manufacture some chocolates Common Terminologies in Linear Programming Process to Formulate a Linear Programming Problem | 3 Tools to Solving Linear Programming Problems Using Graph: Problem Using Graph : Solution Using R Programing: Problem Using R Programing: Solution Using Open-Solver(Excel):Problem Using Open-Solver(Excel): Solution | 4 Methods to Solve Linear Programing Problems Method 1 - Simplex Method(Question) Simplex method: Solution Method 2 - Northwest Corner Method(Problem) Northwest Corner Method: Solution Method 3 - Least Cost Method | 5 Applications of Linear Programming Applications | 6 Conclusion What Next?

Who Should Enroll:

No target audience info available

Duration:

No duration available

Rating:

No rating available

Level:

No level info available

Instructor:

N/A

Link:

https://courses.analyticsvidhya.com/courses/linear-programming

Title: Naive Bayes from Scratch

Description:

Naive Bayes ranks in the top echelons of the machine learning algorithms pantheon. It is a popular and widely used machine learning algorithm and is often the go-to technique when dealing with classification problems.

The beauty of Naive Bayes lies in it's incredible speed. You'll soon see how fast the Naive Bayes algorithm works as compared to other classification algorithms. It works on the Bayes theorem of probability to predict the class of unknown datasets. You'll learn all about this inside the course!

So whether you're trying to solve a classic HR analytics problem like predicting who gets promoted, or you're aiming to predict loan default - the Naive Bayes algorithm will get you on your way. Naive Bayes is a popular and widely used machine learning algorithm for classification problems. Learn what is Naive Bayes, how a Naive Bayes classifier works, and implement Naive Bayes yourself in this course!

Curriculum:

1 Probability Key Terms and Definitions Introduction to Probability Quiz: Introduction to probability Calculating Probabilities of events Quiz: Calculating Probabilities of events AI&ML Blackbelt Plus Program (Sponsored) | 2 The Naive Bayes Algorithm Introduction to Naive Bayes Quiz: Introduction to Naive Bayes Conditional Probability and Bayes Theorem Working of Naive Bayes Quiz: Conditional Probability and Naive Bayes Math Behind Naive Bayes Types of Naive Bayes Quiz: Types of Naive Bayes Implementing Naive Bayes Pros and Cons of Naive Bayes Applications of Naive Bayes Improve your Naive Bayes Model | 3 What Next? More Resources and Next Steps

Who Should Enroll:

No target audience info available

Duration:

30 Mins

Rating:

4.6/5

Level:

Advanced

Instructor:

N/A

Link:

https://courses.analyticsvidhya.com/courses/naive-bayes

Title: Learn Swift for Data Science

Description:

he Swift programming language is quickly becoming the language of choice for a lot of data science experts and professionals. Swift's flexibility, ease of use, excellent documentation, and quick execution speed are key reasons behind the language's recent prominence in the data science space.

Swift is a more efficient, stable and secure programming language as compared to Python. In fact, Swift is also a good language to build for mobile. In fact, it's the official language for developing iOS applications for the iPhone!

The cherry on the cake for Swift? It has the support of the likes of Google, Apple, and FastAI behind it!

"I always hope that when I start looking at a new language, there will be some mind-opening new ideas to find, and Swift definitely doesn't disappoint. Swift tries to be expressive, flexible, concise, safe, easy to use, and fast. Most languages compromise significantly in at least one of these areas." - Jeremy Howard

And when Jeremy Howard endorses a language and starts using it for his daily data science work, you need to drop everything and listen.

In this free course on Swift for Data Science, we will learn about Swift as a programming language and how it fits into

the data science space. If you're a Python user, you'll notice the subtle differences and the incredible similarities between the two. We showcase Swift code as well in the course so get started! Swift for Data Science introduces you to the wonderful world of the Swift programming language and how to use it for data science tasks. Swift is quickly being adopted by data science organizations so start your journey today.

Curriculum:

1 Introduction Getting Started Why Swift? AI&ML Blackbelt Plus Program (Sponsored) | 2 Swift Basics for Data Analysis The Swift Ecosystem Setting up the Environment Basics of Swift programming - I Basics of Swift programming - II Python with Swift | 3 Machine Learning with Swift and TensorFlow The Swift4Tensorflow Library About the Dataset and Setup Implementation of MNIST Image Classification | 4 Bonus Chapter: NLP Based iOS Apps uwing Swift Introduction Setting up the system Basic Text Processing Language Identification in iOS Spell Checking and Correction Part Of Speech (POS) Tagging Identifying People, Organization, etc. from the Text (Named Entity Recognition) Performing Sentiment Analysis on iOS Word Embeddings | 5 What Next? Next Steps

Who Should Enroll:

No target audience info available

Duration:

No duration available

Rating:

No rating available

Level:

No level info available

Instructor:

N/A

Link:

https://courses.analyticsvidhya.com/courses/learn-swift-for-data-science

Title: Introduction to Web Scraping using Python

Description:

The need and importance of extracting data from the web is becoming increasingly loud and clear. There is an unprecedented volume of data on the internet right now - and data science projects often need this data to build predictive models.

That's a key reason why data scientists are expected to be familiar with web scraping.

We have found web scraping to be a very helpful technique for gathering data from multiple websites. Some websites these days also provide APIs for many different types of data you might want to use, such as Tweets or LinkedIn posts.

But there might be occasions when you need to collect data from a website that does not provide a specific API. This is where having the ability to perform web scraping comes in handy. As a data scientist, you can code a simple Python script and extract the data you're looking for.

So knowing how to perform web scraping using Python will help you go a long way towards becoming a resourceful data scientist. Are you ready to take the next step and dive in?

A note of caution here - web scraping is subject to a lot of guidelines and rules. Not every website allows the user to scrape content so there are certain legal restrictions at play. Always ensure you read the website's terms and conditions on web scraping before you attempt to do it.

In this course, we will dive into the basics of web scraping using Python. We will understand what web scraping is, the different Python libraries for performing web scraping, and finally we'll implement web scraping using Python in a real-world project. There's a lot to unpack here so enroll today and start learning! What is web scraping? Why is web scraping a must-know skill? How can you perform web scraping in Python? This course will cover all these aspects of web scraping and showcase how to perform web scraping using BeautifulSoup and Scrapy.

Curriculum:

1 Introduction to Web Scraping What is Web Scraping? Caution Popular Libraries for Web Scraping Components of Web Scraping AI&ML Blackbelt Plus Program (Sponsored) | 2 Web Scraping: Procedure Problem Setup Step 1: Crawl

Step 2: Parse and Transform Step 3: Store the Data | 3 Scraping URLs and Email IDs from a Web Page Single Webpage Scraping Multiple Webpage Scraping(BeautifulSoup and Regex) | 4 Scrape Images in Python Scrape Images in Python | 5 Scrape Data on Page Load Scarpe Data on Page Load

Who Should Enroll:

No target audience info available

Duration:

No duration available

Rating:

No rating available

Level:

No level info available

Instructor:

N/A

Link:

https://courses.analyticsvidhya.com/courses/introduction-to-web-scraping

Title: Tableau for Beginners

Description:

Tableau is the gold standard in business intelligence, analytics and data visualization tools. Tableau Desktop (and now Tableau Public) have transformed the way we interact with visualizations and tell data stories to our clients, stakeholders, and to non-technical audiences around the world.

Tableau has been recognized as a Leader in the Gartner Magic Quadrant for Analytics and Business Intelligence Platforms for 8 straight years. Here's Gartner's most recent ranking in 2020:

In this Tableau for Beginners course, you will learn everything you need to get started with this wonderful visualization and business intelligence tool. You'll be able to build charts like bar charts, line charts (for working with time series data), pie charts, and even get the hang of geospatial analysis using map visualizations in Tableau!

Note: If you're looking to build and master dashboards and storyboards in Tableau, make sure you check out the popular 'Mastering Tableau from Scratch: Become a Data Visualization Rockstar' course! Tableau is the tool of choice for business intelligence, analytics and data visualization experts. Learn how to use Tableau, the different features of Tableau, and start building impactful visualization using this Tableau tutorial!

Curriculum:

1 Introduction Welcome to the Course AI&ML Blackbelt Plus Program (Sponsored) | 2 Concept of Visualization What is Data Visualization and Why Should we Use it Hans Rosling - 200 Countries 200 Years 4 Minutes | 3 Understanding the Length and Breadth of Tableau Navigating the Tableau Interface Part 1 Navigating the Tableau Interface Part 2 | 4 Getting Started with Tableau Connect to the Data Data Visualizations | 5 Different Types of Charts in Tableau Net Statistics Net Statistics Part 2 Line Chart Pie Chart Map Chart Scatter Plots | 6 BONUS: Other Functionalities in Tableau Filters Trend Line | 7 What's Next? What's Next?

Who Should Enroll:

No target audience info available

Duration:

15 Mins

Rating:

4.6/5

Level:

Beginner

Instructor:

N/A

Link:

https://courses.analyticsvidhya.com/courses/tableau-for-beginners

Title: Getting Started with Neural Networks

Description:

Introduction to Neural Networks

What is a neural network? How does it work? What does a neural network do? Learn neural networks for free in this course and get your neural network questions answered, including applications of neural networks in deep learning.

Learn how neural networks work in deep learning

Do you want to acquire a super power? How about learning neural networks? Neural networks are at the heart of the deep learning revolution that's happening around us right now.

Neural networks are the present and the future. The different neural network architectures like convolutional neural networks (CNN), recurrent neural networks (RNN), and others have altered the deep learning landscape.

But as a beginner in this field, you'll have a ton of questions:

What is a neural network?

Why do we need to learn neural networks?

How popular are neural networks?

What are the advantages of neural networks?

What kind of challenges you could face when applying neural networks?

What exactly should you learn about neural networks?

What are the core concepts that make up neural networks?

What are the different types of neural networks in deep learning?

Do you need to know programming to build a neural network?

Which programming language is best for building neural networks? Python or R?

What are the different applications of neural networks?

What kind of problems or projects can you solve using neural networks?

From classifying images and translating languages to building a self-driving car, neural networks are powering the world around us. Thanks to the idea of neural networks like CNN and RNN, deep learning has penetrated into multiple and diverse industries, and it continues to break new ground on an almost weekly basis! Kick start your journey in deep learning with Analytics Vidhya's Introduction to Neural Networks course! Learn how a neural network works and its different applications in the field of Computer Vision, Natural Language Processing and more.

Curriculum:

1 Introduction to Deep Learning What is Deep Learning? Difference b/w Deep Learning and Machine Learning Why Deep Learning is so popular? AI&ML Blackbelt Plus Program (Sponsored) | 2 Getting ready for the course Hardware for Computations in Deep Learning Setting up your system Introduction to Google Colab Understanding Google Colab Interface Pre-requisites for Deep Learning | 3 Introduction to Neural Network Perceptron Quiz - Perceptron Weights in Perceptron Quiz - Weights in Perceptron Multi Layer Perceptron Quiz - Multi Layer Perceptron Forward and Backward Prop Intuition Quiz - Forward and Backward Prop Intuition Gradient Descent Algorithm Quiz - Gradient Descent Algorithm | 4 Activation Functions Why do we need activation functions? Quiz - Why do need activation functions Linear Activation Function Quiz - Linear Activation Function Sigmoid and tanh Quiz - Sigmoid and tanh Softmax Quiz - Softmax | 5 Loss Function Introduction to loss function Quiz - Introduction to Loss Function Binary and Categorical Cross entropy / log loss Quiz - Binary and Categorical cross entropy / log loss | 6 NN on structured Data Understanding Problem Statement: Loan Prediction Data Preprocessing: Loan Prediction Quiz - Data Preprocessing: Loan Prediction Steps to solve Loan Prediction Challenge Loading loan prediction dataset Defining the Model Architecture for loan prediction problem Training and Evaluating model on Loan Prediction Challenge Quiz - Training and Evaluating model on Loan Prediction Challenge | 7 Assignment: Big Mart Sales Prediction Assignment: Big Mart Sales Prediction | 8 Real World

Use cases of Deep Learning Object Detection, segmentation, image generation Quiz - Object Detection, Segmentation, image generation Sequential Modeling Quiz - Sequential Modeling Test Your Neural Network Skills | 9 Where to go from here? Where to go from here?

Who Should Enroll:

No target audience info available

Duration:

70 Mins

Rating:

4.7/5

Level:

Beginner

Instructor:

Instructor Kunal Jain, Founder & CEO, Analytics Vidhya Kunal has 15+ years of experience in the field of Data Science and is the founder and CEO of Analytics Vidhya- the world's 2nd largest Data Science community.

Link:

https://courses.analyticsvidhya.com/courses/getting-started-with-neural-networks

Title: Introduction to AI & ML

Description:

Analytics Vidhya's 'Introduction to AI and ML' course, curated and delivered by experienced instructors with decades of industry experience between them, will help you understand the answers to these pressing questions.

Artificial Intelligence and Machine Learning have become the centerpiece of strategic decision making for organizations. They are disrupting the way industries and roles function - from sales and marketing to finance and HR, companies are betting big on AI and ML to give them a competitive edge.

And this, of course, directly translates to their hiring. Thousands of vacancies are open as organizations scour the world for AI and ML talent. There hasn't been a better time to get into this field! Artificial Intelligence (AI) and Machine Learning (ML) are changing the world around us. From functions to industries, AI and ML are disrupting how we work and how we function. Get to know all about the different facets of AI and ML in this course.

Curriculum:

1 Introduction to AI & ML What is AI&ML? Types of ML When to Apply AI&ML Recent AI Uprising How the world is Changing? Building Blocks of AI and ML Knowing Each Other AI&ML Blackbelt Plus Program (Sponsored) | 2 Common Terminologies, Tools and Techniques Common Terminologies Common Data Capturing Types and Tools Common Tools Common Techniques Common Techniques - Part1 Common Techniques - Part2 | 3 Skills required to become a data science professional Skills Required in Data Science AI and ML Black Belt+ Where to Go from here!!

Who Should Enroll:

No target audience info available

Duration:

2 Hours

Rating:

4.8/5

Level:

Beginner

Instructor:

Instructor Kunal Jain, Founder & CEO, Analytics Vidhya Kunal has 15+ years of experience in the field of Data Science and is the founder and CEO of Analytics Vidhya- the world's 2nd largest Data Science community.

Link:

https://courses.analyticsvidhya.com/courses/introduction-to-ai-ml

Title: Winning Data Science Hackathons - Learn from Elite Data Scientists

Description:

There is no substitute for experience. And that holds true in Data Science competitions as well. These cut-throat hackathons require a lot of trial-and-error, effort, and dedication to reach the ranks of the elite.

This course is an amalgamation of various talks by top data scientists and machine learning hackers, experts, practitioners, and leaders who have participated and won dozens of hackathons. They have already gone through the entire learning process and they showcase their work and thought process in these talks.

This course features top data science hackers and experts, including Sudalai Rajkumar (SRK), Dipanjan Sarkar, Rohan Rao, Kiran R and many more!

From effective feature engineering to choosing the right validation strategy, there is a LOT to learn from this course so get started today! Competing in a data science hackathon is all about skills, tactics, creativity and learning! Here is a unique opportunity to understand how the top hackers approach various types of problem statements and competitions.

Curriculum:

1 Introduction to Winning Data Science Hackathon Course About the Winning Data Science Hackathon course AI&ML Blackbelt Plus Program (Sponsored) | 2 Talks by Elite Data Scientists Effective Feature Engineering - A Structured Approach to Building Better ML Models - By Dipanjan Sarkar Automating the Machine Learning Pipeline with AutoML -By Dr. Sunil Kumar Chinnamgari Panel Discussion - What Sets the Top Hackers Apart? Top Hacks from a Kaggle Grandmaster by Pavel Pleskov Feature Engineering for Image Data by Aishwarya Singh & Pulkit Sharma

Who Should Enroll:

No target audience info available

Duration:

No duration available

Rating:

No rating available

Level:

No level info available

Instructor:

N/A

Link:

https://courses.analyticsvidhya.com/courses/winning-data-science-hackathons-learn-from-elite-data-scientists

Title: Hypothesis Testing for Data Science and Analytics

Description:

Statistics is the study of the collection, analysis, interpretation, presentation, and organisation of data. For all the data science and machine learning enthusiasts it is paramount to be well versed with various statistical concepts such as Hypothesis testing

Every day we find ourselves testing new ideas, finding the fastest route to the office, the quickest way to finish our work, or simply finding a better way to do something we love. The critical question, then, is whether our idea is significantly better than what we tried previously.

These ideas that we come up with on such a regular basis - that's essentially what a hypothesis is. And testing these ideas to figure out which one works and which one is best left behind, is called hypothesis testing. Hypothesis testing is one of the most fascinating steps data scientists perform and the most essential one! What is a hypothesis? How do I validate my hypothesis? Learn all the basics of hypothesis testing and how to implement them in your project!

Curriculum:

1 Introduction to the course Introduction to Hypothesis Testing Course AI&ML Blackbelt Plus Program (Sponsored) | 2 Fundamentals of Hypothesis Testing Understanding Hypothesis Testing Steps to Perform for Hypothesis testing Critical Value - p-value Directional Hypothesis Non-Directional Hypothesis | 3 What is the Z Test? What is Z test? One-Sample Z test One-Sample Z test - Example Two-Sample Z Test Two-Sample Z Test - Example | 4 What is the t-Test? What is t-test? One-Sample t-Test One Sample t-Test - Example Two-Sample t-Test Two-Sample t-Test - Example | 5 Deciding

between Z Test and T-Test Deciding between Z Test and T-Test | 6 Case Study: Hypothesis Testing for Coronavirus using Python Two-Sample Z test for a Coronavirus Dataset

Who Should Enroll:

No target audience info available

Duration:

No duration available

Rating:

No rating available

Level:

No level info available

Instructor:

N/A

Link:

https://courses.analyticsvidhya.com/courses/hypothesis-testing-for-data-science-and-analytics