Data Science

Subject -1 Python

- Introduction
- Operators
- Mathematical Function
- Input and Output Statement
- Command Line Argument
- Flow Control
- String Datatype
- List
- Tuple Data Structure
- Set Data Structure
- Dictionary Data Type
- Function
- Generator
- Module
- Packages
- File Handling
- Exception Handling
- Python Logging
- Python Debugging by using Assertions
- OOPs
- Polymorphism
- Regular Expression

Subject-2 Data Science with Python

Lesson 1: Intro

- Introduction of Data Science
- Different Sector using Data Science
- Purpose and component of Python

Lesson 2: Data Analytics Overview

- data Analytic process
- Exploratory Data Analysis (EDA)
- Eda Quantitative Techniques
- EDA Graphic Techniques
- Data Analytics conclusion or prediction
- Data Analytics communication
- Data Type for Plotting

Lesson 3: Statistical Analysis and Business Application

- Introduction to statistics
- Statistical and Non Statistical Analysis
- Major Category of statistics
- Statistical Analysis Consideration
- Population and Sample
- Statistical Analysis Process
- data Distribution
- Dispersion
- Histogram
- Testing
- Correlation and Inferential Statistics

Lesson 4: Python Environment setup and Essentials

- Anaconda
- Installation of Anaconda Python Distribution
- Data Type with Python
- Basic Operators and function

Lesson 5: Mathematical computing with Python (NumPy)

- introduction with Numpy
- Activity Sequence it right
- Demo creating and printing ND Array
- Class Attribute of ND Array
- Basic Operation
- Activity-slice it
- Copy and View
- Mathematical Function of Numpy
- Assessment
- Assessment Demo

Lesson 6: Scientific computing with Python (Scipy)

- Introduction of Scipy
- Scipy sub packages Integration and Optimization
- scipy sub packages
- Demo to calculate the Eigen Value and Eigen vector
- Scipy Sub package -statistics weaves and Io
- Assignment
- Assignment Demo

Lesson 7: (Data Manipulation with Pandas)

Lesson 8: Machine Learning with Scikit–Learn

Lesson 9: Natural Language Processing with Scikit Learn

Lesson 10: Data Visualization in Python using matplotlib

Lesson 11: Web Scraping with Beautiful Soup

Subject - 3 Tableau

- Getting Started with Tableau
- Working with Tableau
- Deep diving with Data and Connections
- Creating Charts
- Adding calculations to your workbook
- Mapping data in Tableau
- Dashboards and Stories
- Visualizations for an Audience
- Practice Projects

Subject - 4 Machine Learning

- Introduction to AI and Machine Learning
- Data Preprocessing
- Supervised Learning
- Feature Engineering
- Supervised Learning Classification
- Unsupervised Learning
- Time Series Modeling
- Ensemble Learning
- Recommender Systems
- Text Mining
- Project Highlights
- Practice Projects

Subject - 5 Data Science Capstone

- Day Problem and approach overview
- Day Data preprocessing techniques application on data set
- Day Model Building and fine tuning leveraging various techniques
- Day Dashboard problem statement to meet the business objective
- Day Final evaluation

A vision for our Data Science program include the following goals

- Provide students with a strong foundation in mathematics, statistics, and computer science.
- Teach students how to collect, process, and analyze large datasets to extract meaningful insights.
- Emphasize hands-on experience through projects and case studies.
- Incorporate ethical considerations and social impact of data analysis.
- Develop students' problem-solving, communication, and teamwork skills.
- Prepare students for a variety of careers in industry, academia, and government.
- Foster a culture of innovation and continuous learning.
- Encourage interdisciplinary collaboration with other fields such as business, psychology, and sociology.
- Stay up-to-date with the latest tools, techniques, and applications in the field.

The scope of our Data Science program encompass the following areas:

- Mathematics and Statistics: including linear algebra, calculus, probability, and statistical inference.
- Computer Science: including programming, databases, algorithms, and data structures.
- Data Collection and Management: including data acquisition, cleaning, and preprocessing.
- Data Analysis and Visualization: including statistical modeling, machine learning, and data visualization techniques.
- Machine Learning: including supervised, unsupervised, and reinforcement learning.
- Deep Learning: including neural networks, convolutional neural networks, and recurrent neural networks.
- Natural Language Processing: including text classification, sentiment analysis, and named entity recognition.
- Big Data: including distributed systems, NoSQL databases, and data streaming.
- Data Ethics and Privacy: including issues related to bias, fairness, and data privacy.
- Applications: including recommendation systems, image and speech recognition, and predictive modeling.
- Communication and Teamwork: including presentation skills, technical writing, and collaboration in data science projects.

Important Points

- Live class video recording will be accessible till life
- time1-1 mentorship will be given
- Unpaid internships will be given

COURSE DURATIONS 5 TO 6 MONTHS

My Name is Rajesh Thakur and I am currently part a team of Machine Learning Scientists/Engineers impactful platform to help leasing teams provide 24/7 coverage and engagement through AI + humans. I have held data science positions in companies ranging from startups to fortune 100 organizations. I transitioned into data science domain from Development and automation testing background. When I was first starting out on my data science journey I was extremely lost; there were very few resources for me to learn about this field from. I decided to start making YouTube videos to share my experiences and to hopefully help others get back into the data science.

https://rajeshthakur1.github.io/RajeshThakur1/about/

Data Scientist
Rajesh Thakur
77240 83836

Thank You

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