



Program Syllabus

What is Data Science?

- Introduction to Data Science
- Real life examples with applications
- Data Scientist job roles and responsibilities
- The most promising job of the 21st Century
- Machine Learning vs. Data Science vs. AI

Introduction to Python

- Python Introduction
- Installation of Anaconda Navigator
- Jupyter Notebook Interface
- How to Open, Save and Rename a file
- Variables and Data Types
- Python Strings
- Loops (Conditional)
- Loops (Iterative while)
- Loops (Iterative For)
- Python Functions (Built in, Lambda, User defined functions)
- Lists
- Tuples
- Sets
- Dictionaries



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Data Manipulation and Data Analysis Tools

- Numpy Arrays in Python
- Three Dimensional Arrays Indexing and Slicing
- Matrices
- Pandas in Python
- Importing CSV, Excel Files
- Exporting CSV File

Python - Statistics

- Basic descriptive statistics with Numpy and applying statistical functions on matrices
- Linear Algebra with NumPy
- Numpy Random Numbers
- Probability distributions using NumPy
- Normality test with SciPy

Python - Pandas

- Pandas Data Frames
- Querying Data in Pandas
- Data Aggregation with Pandas Data Frames
- Concatenating and appending Data Frames
- Joining Data Frames
- Statistics with Pandas Data Frames
- Handling Missing Data
- Pivot Tables
- Plotting in Pandas



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Data Visualization in Python

- The matplotlib package
- Basic matplotlib Plots
- Logarithmic Plots
- Scatter Plots
- Three Dimensional Plots
- Lag Plots
- Autocorrelation Plots
- Plot.ly

Applications in Industry - BFSI

- In consultation with Industry experts



Our Instructors



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