

PYTHON FOR DATA ANALYTICS



LEARNING TRACK



Introduction to Python and Data Analysis

- Overview of Python programming language
- Setting up Python environment (e.g., Anaconda, Jupyter Notebooks)
- Basic Python syntax and data types and so on...



Data Visualization with Matplotlib and Seaborn

- Introduction to data visualization
- Overview of Matplotlib and Seaborn libraries
- Creating basic plots: Line plots, scatter plots, bar plots and so on...



Introduction to Statistical Analysis with Python

- Overview of statistical concepts in data analysis
- Probability distributions and hypothesis testing
- Conducting t-tests and chi-square tests and so on...



Data Manipulation with Pandas

- Exploring and understanding Pandas data structures: Series and DataFrame
- Data indexing and selection
- Data cleaning and preprocessing techniques and so on...



Exploratory Data Analysis (EDA)

- Understanding the importance of EDA in data analytics
- Descriptive statistics and summary metrics
- Data distribution analysis and so on...



Machine Learning Fundamentals

- Introduction to scikit-learn library
- Supervised learning: Regression and Classification
- Unsupervised learning: Clustering and Dimensionality Reduction and so on...