

SCHEME FOR DATA SCIENCE

1. Basic Python Programming
2. Library For Data Science
 - a. NumPy
 - i. What is NumPy Arrays?
 - ii. Where is NumPy Used?
 - iii. NumPy Array v/s List
 - iv. NumPy Operations
 - v. NumPy Special Functions
 - b. Pandas
 - i. What is Pandas
 - ii. Pandas Operation
 1. Slicing the data frame
 2. Merging & Joining
 3. Concatenation
 4. Changing the index
 5. Change column headers
 6. Data munging
 - iii. Use-Case: Analyze Youth Unemployment Data
 - c. Matplotlib
 - i. What is Python Matplotlib?
 - ii. What is Matplotlib used for?
 - iii. Types Of Plots
 1. Bar Graph
 2. Histogram
 3. Scatter Plot
 4. Area Plot
 5. Pie Chart
 - d. Seaborn
 - i. What is Seaborn?
 1. Python Seaborn vs Matplotlib
 - ii. Why Use Seaborn?
 - iii. How To Install Seaborn
 - iv. Installing Python Seaborn Dependencies
 - v. Seaborn Plotting Functions
 1. Visualizing Statistical Relationships
 2. Plotting With Categorical Data
 3. Visualizing The Distribution Of A Dataset
 - vi. Multi-plot Grids
 - vii. Plot-aesthetics
 1. Python Seaborn Figure aesthetics
 2. Python Seaborn Color Palettes
 - e. Scikit-Learn
 - i. What Is Machine Learning?
 - ii. Overview Of Scikit Learn
 - iii. Installation
 - iv. Use Case – Logistic Regression

Data Science Project Road Map

Project: Detecting the best football team on a 4:3:3 formation based on a football dataset.

1. Data Loading
2. Data Cleaning
3. Data Exploration
4. Data Visualization
5. Conclusion