## **Data Science Notes**

# **Python Fundamentals for Data Analysis**

This section covers the basics of Python relevant to data science tasks.

- Variables and Data Types (int, float, string, boolean)
- Data Structures (Lists, Tuples, Dictionaries)
- Control Flow (if/else, for/while loops)
- Functions

### **NumPy**

NumPy provides powerful N-dimensional array objects.

import numpy as np

#### **Pandas**

Pandas is essential for data manipulation and analysis, featuring DataFrames.

import pandas as pd

#### Visualization

Libraries like Matplotlib and Seaborn are used for creating plots.