Objectives

The Objectives of this week are mainly learning and getting familiar with python and important modules for the purpose of Data Analysis and Machine Learning. We shall cover three main modules this week.

1. **NumPy** : The computing module. It eases various common algebraic operations such as matrix/vector multiplication, inverse, powers, calculating mean, variance, etc.
2. **Scipy** : This as the name suggests is the scientific module. It eases operations such as calculating derivatives of functions, scaling and normalization.
3. **MatPlotLib** : The plotting module. This helps us to plot various types of plots, histograms, line charts and many more.

Python

Text tutorials

1. [Learn Python](#) : Learn the basics completely. Skip the Data Science part. In the advanced tutorial complete : *Generators, List Comprehension, Multiple Function Arguments, Sets, Map, filter, reduce*

NumPy

1. [Numpy QuickStart](#)
2. [Numpy Basics](#)

MatplotLib

Text Tutorials

1. [Usage Guide](#) : Skip the backend part
2. [Pyplot](#) : The most frequently used tool in matplotlib