Financial Data Analysis & Prediction (6 Hours)

Introduction to Financial Analysis

* Benefit of analysing financial data
* Different kind of financial data
* Various use-cases
* Indian Stock Data Basics
* Benefits of Analysis & Prediction of Stock

Setting up Environment

* Stock & Financial Data Libraries
* Installing NSEPY
* Fetching price history
* Stock price history
* Stock futures price history
* Stock options price history
* Index price history

Time Series Analysis and Prediction of Stocks Value

* Simple Moving Averages
* Weighted Moving Averages
* Exponential Moving Averages
* Simple Exponential Smoothening
* ARIMA Models
* Introduction to FB Prophet
  + Basic Predictions of Stock
  + Modelling Trends
  + Modelling Seasonality
  + Modelling Uncertainty

Machine Learning & Deep Learning for Predictions of Stocks

* Feature Engineering for Stocks
* Regression based Model
  + Linear Models
  + Tree Based Models
  + Ensemble Models
* Classification of Stock Price – Buy/Sell Prediction
* LSTM based Models