

Stock Market Prediction

What is the problem you want to solve?

- Can the stock market for specific stable indexes or large stock companies be predicted with previous stock closing prices?
- Can the stock price of a certain index or stock be predicted based on other companies that are in the same industry or somehow related?

Who is your client and why do they care about this problem?

- The findings would be useful for everybody involved in the stock market including hedge funds, banks, stock brokers, short sellers, etc.
- By having a good predictive model, the people interested can use this model to help make decisions in what to buy and sell.
- They care about this problem because there is a money involved.

Briefly outline how you'll solve this problem.

- First, I will have to decide on what stocks to focus on such as large companies that are related or stock indexes.
- Data will need to be gathered from an API source such as Google Finance, Yahoo Finance, or Quandl.
- Data will need to be cleaned and munged for a specific time frame, so that the data will be easily usable for the purposes of this report.
- EDA will be performed on the data and any interesting findings will be noted.
- Data will be time-series, so respective analysis methods will be performed such as testing for stationarity, upsampling or downsampling, etc.

- ARIMA will be used for forecasting the data.

What are your deliverables?

- Github code will be in jupyter notebook format.
- Both a powerpoint and report paper will be made to fully disclose the results.