Stock Price Predictor

Udacity - Machine learning Nano Degree Program : Project-6 (Capstone project)

Project Overview

This is sixth and final capstone project in the series of the projects listed in Udacity-Machine Learning Nano Degree Program.

Investment firms, hedge funds and even individuals have been using financial models to better understand market behavior and make profitable investments and trades. A wealth of information is available in the form of historical stock prices and company performance data, suitable for machine learning algorithms to process.

The project I am going to implement is to do with finance and stock predictions, one of the main reasons for choosing the stock market is the vast amount of data available and secondly we would like to see how we could use machine learning to predict the fluctuation of the entire market or a particular stocks based on tweets made by influential personalities.

--Obtain data from yahoo finance and tweets from twitter

--Data Pre-processing

--Training the model

--API: Twitter API, StocksAPI from rapidAPI

Rapid API AND TWITTER API

You must sign up for Rapid API Create an account and subscribe to the YAHOO FINANCE API. And singup to twitter and create an account and create your twitter api You will need your RAPIDAPI-HOST and RAPIDAPI-KEY in the Jupiter Notebook for training your model.

Libaries Used

- scikit-learn
- Pandas

- Numpy
- Matplotlib
- Treeinterpreter
- SentimentAnalyzer

- Algorithms: MLPC, Random Forest,

           Linear Regression,

           NLTK vader lexicon