Advanced Analysis of Stock Market Prediction

[1]T Swathi, [2] Pavithra S

[1]Assistant Professor of CSE Department, G. Pulla Reddy Engineering College (Autonomous):
Kurnool,Andhra Pradesh, India

[2]Post-Graduation student of CSE Department currently pursuing IIIrd semester,G. Pulla Reddy Engineering
College (Autonomous): Kurnool, Andhra Pradesh, India

[1] swa1041@gmail.com,[2]pavitraskucet@gmail.com

Abstract:
Financial markets are fascinating Stock markets as the most rewarding career. Financial markets are producing vast amount of information when they go a long period. By using the data sets generated and recorded at the stock market will help us to analyze how many traders had made an decision to buy and sell, based on price and time. Three broad companies explaining about three different machine learning moral data and then comparing the results to see the best predictive of stock market production for future price. Thinking about the process of creating an investment strategy on deciding to make an investment in each, to figure out company most likely Google, Apple and Tesla which gives big returns. Generally research on companies history, and news in websites of company and its articles help to analyze fares over years and ensure price movement over time as shown in below figure .Mostly 80 percent trading volume of stock market is generated by algorithms. It explains about high frequency trading algorithm and also about prediction of the stock market . These algorithms usually use very simple methods like Rule based methods, linear regression and logistic regression model Prediction of stock market is most important is deep learning.

Keywords: *Sentiment analysis, High frequency trading algorithm, Rule based methods, Machine learning, Stock market.*

I. INTRODUCTION

After several observations about the company, the future of the company analyses stock market on different platforms like twitter and some social media platforms. Finally, gathering all data about the company to predict production of the company in terms of price.It can also predict stock market prices using machine learning[1,2]. Analyzing data points in terms of news, history of the company, industry etc and lot of data points together build the predicted value in the stock market[3,4].

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profit, which may arise directly or indirectly by the reliance or use of such information.

II. Rule based stock market:

Actually sentiment + Price data for prediction

We can use the sentiment of the public, company history, and previous historical prices as a key data points in this process. The stock prices can be predicted by combining several data points from across the web.

Fig.1 Price data for prediction

Psychologically emotions can play large role in stock price which consist of supply on demand, public opinion is much more important to analyze for better purchasing decisions on getting requirements fulfilled at any point of time [9,10].

For example considering a movie, sometimes -1 negative opinions and sometimes +1 highly positive opinions are extracted from different websites..

III. Sentiment analysis for predicting stock market:

Sentiment analysis is a method of understanding public attitude over a topic/product. With machine learning, it uses different algorithms for thousands of posts to automatically classify/learn, without reading them manually[11,12].

Since it is becoming more common on brokerage websites, to overcome this it is better to examine how the algorithm works[13].By considering one of the social platform like twitter, algorithm would finally aggregate all the scores of the tweets to capture the overall sentiment/bias at any point of the time given. As it can be done with all supervised learning methods to determine its accuracy.

IV. Supervised sentiment analysis:

Building the algorithms collect thousands of tweets and manually determine if the tweets are bullish or bearish. Several people have attempted to extract patterns that effect stock market from different stimulant sources. Nevertheless finding the best time to buy or sell stock is a difficult task since many factors may influence the stock price[14]. At most 80 percent of trading volume of stock market is generated by algorithms.

The high frequency trading algorithm, explains about approach of predicting the stock market in the future. These algorithms usually use a very simple methods like Rule based methods and linear regression and logistic regression model. To predict stock market is one of the most important is deep learning model. It is used to learn much more complexity of the data analysis [15].
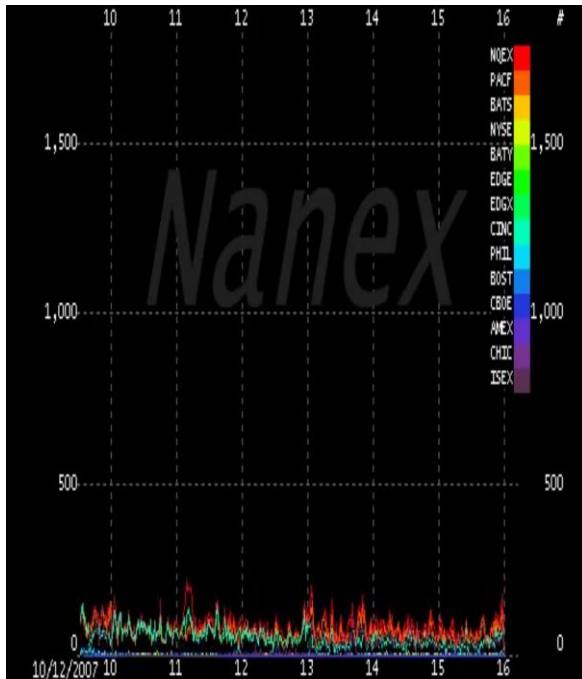
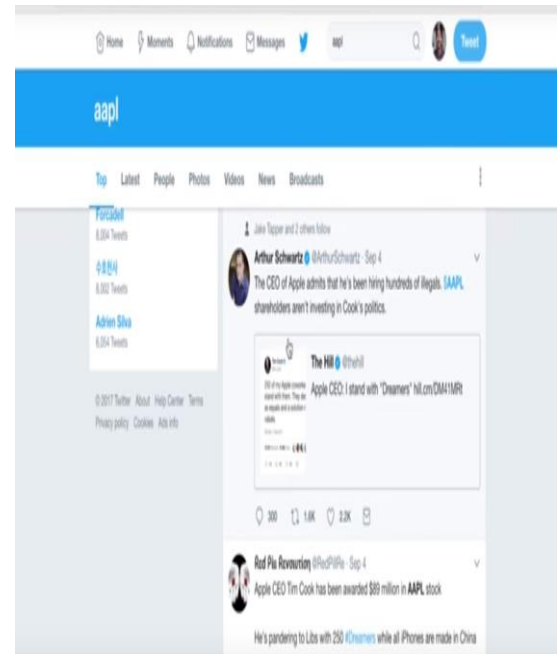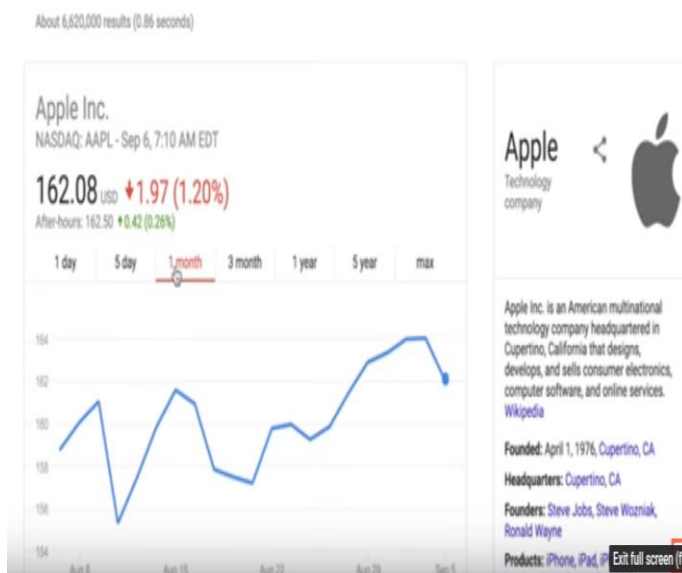Fig.2 Analysis of stock prediction

Fig.3. stock price analysis

V.Literature survey:

The stock prices are totally random and unpredictable every time as shown in below figures.

and that is not a perfect use case for machine learning and learning past data points to predict about the future price. There are so many popular websites Google trends, Wikipedia etc. which are morally capable of resisting an investment decision and it plays major role in acquiring high accuracy for predicting the market. As in the academic research area stock market prices are hard to predict and its been an active research area for a while. Due to its profits financially it is attracting the attentions of different personalities from different domains either from the academic or business side[16]. Building an accurate prediction model is still a challenging problem. It is known that stock market prices are largely driven by the new information and it follows a random walk pattern as stated by the efficient market hypothesis.

VI. Conclusion:

As now market direction is actually referred to in the technical world as a trend. So the market of stock is moving up, is an up trend and a stock moving down is an downtrend, sometimes stocks reach in a no trade zone or sideways and this happens because as the market goes up it forces a situation of supply and when markets falls down it forces a situation of

demand coming in. By the concepts of supply and demand over long periods of time and psychology exists on all time frames, Trendy concepts usually work on all timeframes. In sentiment analysis usefulness of trading is minimum criteria ie. Problems with pump and dumpers and suspected evidence of users posting under multiple accounts to sway opinion.

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