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Non -Euclidean Distance Based Range Localization Approach For Wireless Sensor Network

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Abstract: ***Stock market or Share market is one of the most complicated and sophisticated way to do business. Small ownerships, brokerage corporations, banking sector, all depend on this very body to make revenue and divide risks; a very complicated model. However, this paper proposes to use machine learning algorithm to predict the future stock price for exchange by using open source libraries and preexisting algorithms to help make this unpredictable format of business a little more predictable. We shall see how this simple implementation will bring acceptable results. The outcome is completely based on numbers and assumes a lot of axioms that may or may not follow in the real world so as the time of prediction.***

1. INTRODUCTION

In the finance world stock trading is one of the most important activities, Stock market prediction is an act of trying to determine the future value of a stock. The technical and fundamental or the time series analysis is used by the most of the stockbrokers while making the stock predictions. The trend in a stock market prediction is not a new thing and yet this issue is kept being discussed by various organizations. There are two types to analyze stocks which investors perform before investing in a stock, first is the fundamental analysis, in this analysis investors look at the intrinsic value of stocks, and performance of the industry, economy, political climate etc. to decide that whether to invest or not. On the another side, the technical analysis it is an evolution of stocks by the means of studying the statistics generated by market activity, such as past prices and volumes. Here, the Machine Learning (ML) approach is used to prredict the future trend of a particular company, that will be trained from the available stocks data and gain intelligence and then uses the acquired knowledge for an accurate prediction. Machine learning technique used here is called Support Vector Regression (SVR) and Linear Regression to predict stock prices for the large and small capitalizations ,employing prices with both daily and monthly time series. The main purpose of the prediction is to reduce uncertainty associated to investment decision making. In the existing prediction called the dummy prediction, they have define some set of rules and predict the future price of shares by calculating the average price. However in the real time system, develop a financial data predictor program in which there will be a dataset storing all historical stock prices and data will be treated as training sets for the program and for the prediction compulsory internet is used to retrieve the data set and get the current price of shares of the company. Stock Market follows the best prediction we can have about tomorrow's value is today's value. The forecasting stock indices is very difficult because of the market volatility that needs accurate forecast model. Stock prices are considered to be a very dynamic and susceptible to quick changes because of underlying nature of the financial domain and in part because of the mix of a known parameters (Previous day's closing price, Opening price,trade over quantity etc) and the unknown factors (like Election Results, Rumors etc.). The focus of stock market prediction varies in two ways. (1) The targeting price change can be near-term (less than a minute), short-term (tomorrow to a few days later), and a long- term (months later). (2) The predictors used can range from a global news and economy trend, to particular characteristics of the company, to purely time series data of the stock price.

LITERATURE SURVEY

In Stock Market Prediction, the aim is to predict the future value of the financial stocks of a company. The recent trend in stock market prediction technologies is the use of machine learning which makes predictions based on the values of current stock market indices by training on their previous values. Machine learning itself employs different models to make prediction easier and authentic. The paper focuses on the use of Regression and LSTM based Machine learning to predict stock values. Factors considered are open, close, low,

high and volume.

Machine learning and artificial intelligence techniques are being used in conjunction with data mining to solve a plethora of real world problems. These techniques have proven to be highly effective, yielding maximum accuracy with minimal monetary investment and also saving huge amounts of time. To add to their annual income, nowadays, people have started looking at stock investments as a lucrative option. With expert guidance and intelligent planning, we can almost double our annual revenue through stock returns. That said, stock investment still remains a risky proposition for the uninitiated. Exorbitant wages of the investment experts coupled with a general ignorance pertaining to the financial matters among the public, deters many from trading in stocks. The fear of losses also acts as a deterrent to many. These facts propelled us to harness the power of machine learning to predict the movement of stocks. Using sentiment analysis on the tweets collected using the Twitter API and also the closing values of various stocks, we seek to build a system that forecasts the stock price movement of various companies. Such a prediction would greatly help a potential stock investor in taking informed decisions which would directly contribute to his profits.

EXISTING SYSTEM

In the existing system, uses various methods for finding the true value of a company and thus determine the future trend of a company .Two most common metrics are: Price to Earnings Ratio, and Price to Book Ratio to predict long term price movements on a year to year basis. This is the typical prediction range for Fundamental Analysis. Due to the prediction range of Fundamental Analysis, it would not be able to generate a sufficiently large dataset . The most popular method used to estimate the intrinsic value of a stock is the price to earnings ratio. The P/E ratio is calculated by dividing the price of the stock by the total of its 12-months trailing earnings. Companies that are growing rapidly will have higher P/E ratios compared to mature businesses with slower growth rates.And the current intrinsic value of a stock can be calculated by finding the company's average historical P/E ratio and multiply by the projected earnings per share.
Intrinsic Value = P/E Ratio X Earnings Per Share And, while this formula calculates the expected future price of the stock based on the input variables, there is no way to predict when or if this price will actually occur.Therefore, it's impossible to predict the future scope of a company.

Limitations

1. In times of high inflation, P.E ratio ends to be lower. So will not get a clear picture about the valuation of the stock during a bear phase.
2. As a company can manipulate its earning, so EPS as well as price to earning ration can be distorted.
3. Trailing P.E ratio takes the past earnings of a company into consideration. So this ratio won't provide a clear idea of future earning perspective of a company

These methods do not attempt to capture these qualitative values, therefore they are limited to purely quantitative company metrics.

PROPOSED SYSTEM

In the proposed system, future value can be found out by using the four prices that are recorded during the day. The four prices which includes open,low,high and close.
Open :this is the first price at which a trade gets executed when markets open in the morning.
High : This is the highest price at which a trade could be executed during the trading day. Low : this is the lowest price at which a trade could be executed during the trading day. Close : This is the last price at which the markets got closed.If the open price is lower than the close price, the day is considered to be a positive day and if the close price is lower than the open price,the day is considered to be a negative one.

CONCLUSION

Stock Market Prediction , a system used to predict the future trend of a particular company. Here, the data is collected from different global financial markets with machine learning algorithms in order to predict the stock index movements which contains the different attributes. Selecting algorithm is mainly depend on the dataset therfore SVM algorithm is taken here , it works based on the large dataset value ie (historical data) which contains bundle of datas which is collected from internet. Also, SVM does not give a problem of over fitting. Various machine learning based models are proposed for predicting the daily trend of Market stocks. Numerical results

suggest the high efficiency. The model generates higher profit compared to the other machine learning techniques. Support vector regression and linear regression are very good at predicting Market Fluctuations if trained with sufficient amount of data. The results are very accurate and the error rate is minimal. The proposed system with SVR based prediction method the system's error rate is close to not more than 10% which implies a very high 90 % prediction accuracy.

FUTURE ENHANCEMENT

Public-key infrastructures are secure, but only to the extent that private keys of individuals are maintained secret. Here are going to describe retinal based cryptogrphy which involves securing the private key(s) In order to provide a higher degree of security for embedded computing devices to propose hybrid pseudorandom bit sequences generator to overcome the issue of key management in any symmetric block ciphers.. Further, with various level of rounds and random memory location selection based key extraction from biometrics can secure keys with greater confidence and with a higher level of security will be compared to other security mechanisms

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