

Artificial Intelligence Based Stock Price Prediction Using Machine Learning

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Abstract

Stock market has been the Centre of attraction for investors for a long period of time. The investor's goal is to buy the stock, hold it for a period, and then, sell the stock for more investor paid for it. Many people invest to create wealth and to gain a rich reward. By investing in the stock market, it will improve the returns equity. In this project, the main focus is to predict the future stock price movement for more company listed in India. This project used eight months daily basis of historical data to model the relationship using long short term memory (LSTM). By using logistic regression, stock market movement able to predict the stock price movement, either an increasing trend or unchanged or decreasing movement. In this work, LSTM techniques have been utilized for predicting the next day closing price for five companies belonging to different sectors of operation. The financial data: Open, High, Low and Close prices of stock are used for creating new variables which are used as inputs to the model.

Keywords: LSTM, operation, sectors, stock, financial

Introduction

The financial market is a dynamic and composite system where people can buy and sell currencies, stocks, equities and derivatives over virtual platforms supported by brokers. The stock market allows investors to own shares of public companies through trading either by exchange or over the counter markets. This market has given investors the chance of gaining money and having a prosperous life through investing small initial amounts of money, low risk compared to the risk of opening new business or the need of high salary

career. Stock markets are affected by many factors causing the uncertainty and high volatility in the market. Although humans can take orders and submit them to the market, automated trading systems (ATS) that are operated by the implementation of computer programs can perform better and with higher momentum in submitting orders than any human. However, to evaluate and control the performance of ATSS, the implementation of risk strategies and safety measures applied based on human judgements are required. Many factors are incorporated and



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