IJARSCT
ISSN (Online) 2581-9429
International Journal of Advanced Research in Science, Communication and Technology (IJARSCT)
International Open-Access, Double-Blind, Peer-Reviewed, Refereed, Multidisciplinary Online Journal
Impact Factor: 7.301
Volume 3, Issue 1, June 2023

Stock Price Prediction using Long Short-Term Memory

Niraj Shaha, Rajvardhan Jatrate, Abhishek Patil, Rutik Lahamate
Students, Department of Computer Engineering[1,2,3,4]
Professor, Department of Computer Engineering[5]
International Institute of Information Technology, Maharashtra, India

Abstract: *Implementing a stock price prediction model with the help of machine learning is our main approach in this project. In the fields like, stock price prediction, weather forecasting and others where prediction is important, machine learning is effectively implanted and also provided results with higher accuracy. Main objective behind the system is prediction of stock prices which will help new comers or less experienced peoples in investment and getting a return on their investments. The present study provides profound insights into the dynamic nature of stock markets, offering practical guidance and augmenting the existing theoretical underpinnings for newcomers and investors. Leveraging Deep Learning and Machine Learning models, the research focuses on forecasting future stock prices through the analysis of time-series data. By collecting historical stock data from reputable financial websites, a sequential model and LSTM (Long Short-Term Memory) neural network model are employed for training and predicting stock prices. Proposed system does the prediction based on machine learning, deep learning, Mathematical function, and other external factors such as news, disasters, wars etc. 'Intraday/Swing' and 'Long-term' are the two types of stocks. In intraday/swing, the stock is held for minimum of 1 day and maximum for 2 or 3 days. So, for the sequential predictions LSTM is most powerful. LSTM works on past stored data and information and makes an output.*

Keywords: ML, DL, LSTM, Trade open, Trade close, Trade High, Trade Low

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