

Review of: "Machine Learning Methods in Algorithmic Trading: An Experimental Evaluation of Supervised Learning Techniques for Stock Price"

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Potential competing interests: No potential competing interests to declare.

"This paper must go through a major revision"

This paper outlines a comprehensive study aimed at forecasting stock and currency prices using state-of-the-art ML techniques. The authors seek to contribute to the financial forecasting using the models such as Transformers, LSTM, Simple RNN, NHits, and NBeats. They claimed that they use a variety of data sources, including historical stock and currency prices, macroeconomic data, and market sentiment data. They have implemented and evaluated the selected ML models using a variety of metrics, such as mean absolute error (MAE) and mean squared error (MSE). The researchers proposed NBeats and NHits models exhibit superior performance in financial forecasting tasks, especially with limited data, while Transformers will require more data to reach full potential. The findings of this research have the potential to provide valuable insights for investors, financial analysts, and researchers. By highlighting the strengths of different ML techniques for financial prediction, the authors can inform model selection for real-world applications.

Authors needs to address the following points.

1. In the abstract section authors needs to mention the performance in-terms of accuracy and other out come metrics.
2. Keywords are missing below the abstract section.
3. **After minutely reading the manuscript minutely I guess that the english language might have been generated by chat gpt?? if it is the case then kindly edit the whole manuscript urgently. See that the below introduction section:**

..."The complex landscape of the financial world presents a complicated pattern of factors that collectively affect the paths of stock and currency prices. Within this intricate network of elements, the effort to accurately predict price changes becomes a significant challenge that matters across industries and influences decision making .."

"a complicated patterns of factors that collectively affect the path of stock and currency prices",....**these are too heavy words, you need to write simply English (readable English).**...

"Within this intricate network of elements.....".....this line is also seems to be a machine generatedthis is persistent through out the manuscript, therefore authors are advice to re write the whole manuscript specially excluding those heavy words.

4) Authors need to re draw the fig 1 which is not visible clearly. Explain all figures in the text.

5) Nothing you mentioned about the how you choose the data (data collection) and what are the statistical methods you use on data and cleaning and pre-processing models not written clearly.

6) What data sets you have considered; consider multiple financial data sets or even you can extract real time data from US STOCK exchange.

7) Please cite these following bench mark papers:

a) Lei, K., Zhang, B., Li, Y., Yang, M., & Shen, Y. (2020). Time-driven feature-aware jointly deep reinforcement learning for financial signal representation and algorithmic trading. *Expert Systems with Applications*, 140, 112872.

b) Bose, A., Hsu, C. H., Roy, S. S., Lee, K. C., Mohammadi-Ivatloo, B., & Abimannan, S. (2021). Forecasting stock price by hybrid model of cascading multivariate adaptive regression splines and deep neural network. *Computers and Electrical Engineering*, 95, 107405.

c) Ryś, P., & Ślepaczuk, R. (2018). Machine Learning Methods in Algorithmic Trading Strategy Optimization—Design and Time Efficiency. *Central European Economic Journal*, 5(52), 206-229.

d)Shukla, A., Das, T. K., & Roy, S. S. (2023). TRX Cryptocurrency Profit and Transaction Success Rate Prediction Using Whale Optimization-Based Ensemble Learning Framework. *Mathematics*, 11(11), 2415.

e)Wu, M. E., Syu, J. H., & Chen, C. M. (2022). Kelly-based options trading strategies on settlement date via supervised learning algorithms. *Computational Economics*, 59(4), 1627-1644.

f)Wang, W., & Yu, N. (2019, August). A machine learning framework for algorithmic trading with virtual bids in electricity markets. In *2019 IEEE power & energy society general meeting (PESGM)*(pp. 1-5). IEEE.

g)Roy, S. S., Roy, A., Samui, P., Gandomi, M., & Gandomi, A. H. (2023). Hateful Sentiment Detection in Real-Time Tweets: An LSTM-Based Comparative Approach. *IEEE Transactions on Computational Social Systems*.

8)Please change all your future tense to present or present perfect tense such as

...Model Implementation. Five distinct models will be implemented for comparative analysis:....This is a wrong way of writing content in a manuscript.

Check whole manuscript and change accordingly without future tense.

9) Again the problem defination is written in too complex way(as I said could be become of use of Genrative AI tool) kindly

see the below content:

*.....**Problem Definition.** The problem at hand pertains to the accurate prediction of price movements in the context of financial markets, specifically for cryptocurrency and stock assets. This problem revolves around the inherent challenge of anticipating the future price changes of these volatile assets, which are influenced by multifaceted factors including market sentiment, economic indicators, and global events. The task of predicting these price fluctuations carries significant importance for traders, investors, and financial institutions seeking to optimize their decision-making processes. To address this problem, this paper explores the utilization of machine learning (ML) algorithms to predict price trends in the dynamic realm of cryptocurrency and stock markets. The application of ML algorithms offers a data-driven approach that leverages historical price data and potentially relevant features to make informed predictions.*

EDIT THE WHOLE MANUSCRIPT AGAIN WITH HUMAN LANGUAGE. LOOKS TOO ODD TO READ.

10) ALL algorithms (proposed) i.e pseudocode must be written.

11) All method must have literature back in detail with existing equations.

12) Have a discussion part before conclusion.

13) 11. Code Access should be changed to experimental outcomes.

14) Besides suggested references authors are also requested to add more current reference(sufficient).