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.

The research proposal on machine learning methods in algorithmic trading presents a thorough and insightful investigation into the application of state-of-the-art machine learning techniques for stock and currency price forecasting. The study explores models such as Transformers, LSTM, Simple RNN, NHits, and NBeats, offering a valuable contribution to the field of financial forecasting.

The methodology outlined in the article is comprehensive, covering aspects such as data collection, model implementations, evaluation metrics, and potential applications of the research findings. The focus on diverse machine learning models provides a well-rounded perspective on their effectiveness in handling financial time series data.

The findings of the research are clearly presented, with a particular emphasis on the performance of different models in various scenarios. The revelation that NBeats and NHits exhibit superior performance, especially with limited data, is a significant contribution to the understanding of machine learning applications in finance. The insight into the unique architectures of these models and their ability to capture local patterns and nonlinear relationships adds depth to the analysis.

The comparative results offer a nuanced view of each model's strengths and weaknesses. The observation that Transformer models show potential with more data but face challenges in low-data regimes due to their complexity is a valuable practical consideration for those looking to implement these models in real-world scenarios. The acknowledgment of the need for careful tuning of RNN and LSTM models highlights the importance of hyperparameter optimization in achieving optimal performance.

The recognition of the difficulty in capturing long-range dependencies in financial data, especially with longer sequences, provides a realistic perspective on the limitations of current machine learning techniques. This acknowledgment is essential for guiding future research efforts and setting expectations for the practical implementation of these models.

In summary, the research review provides a well-structured and informative analysis of machine learning methods in algorithmic trading. The clarity in presenting findings, highlighting model strengths and limitations, and offering practical insights for real-world applications make this article a valuable resource for investors, financial analysts, and researchers interested in leveraging machine learning for financial forecasting.