Peer Review

Guided Research Class

June 2023

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Research Project Title: Cryptocurrency Price Forecasting: Comparative Analysis of Deep Learning

Models with Outlier Handling

1 Summary

The proposal emphasizes the importance of accurate cryptocurrency price predictions for investors and traders, and it suggests a research study for this project to analyze and compare several deep learning models. The suggested work plan involves data collecting and preparation through the use of an API, as well as a comparison of ARIMA-family models, Prophet, RNN, GRU, LSTM, and Temporal-fusion Transformers. The project's technical goals are to evaluate these models' ability to capture the complex dynamics and non-linear patterns of cryptocurrency price data.

2 Strong parts

The proposed research project has several strong parts, such as its focus on relevant topics (predicting cryptocurrency prices, deep learning), its use of deep learning models, which have shown promise in capturing complex patterns and dependencies in time-series data, and its extensive work plan, which includes data collection and preparation as well as comparative analysis of various deep learning models. Overall, I think it can be a solid project to improve understanding of different deep learning models and compare them.

3 To be Improved

Some potential areas for improvement could be:

- Providing more details on the specific data sources and pre-processing techniques to be used
- Discussing potential limitations or challenges of the project
- Discussing expected risks during the research/implementation.
- What results are planned to be achieved during the midterm and the final?
- What researches/projects have been done and how the author is going to improve it or do something better?