Title: A Comparative Analysis of Machine Learning Models for Predicting Stock Returns using Financial Data: Assigning Duties and Contributions

Introduction: My paper presents a comparative analysis of three machine learning models—Linear Regression, Random Forest, and Support Vector Machine—for predicting stock returns using historical financial data. I explore the performance of these models, as well as future research directions, challenges, and potential solutions for machine learning in finance.

Duties and Contributions: As the sole author of the paper, I conducted all aspects of the research, including:

- Data preprocessing, feature engineering, and model selection and training

- Feature selection and hyperparameter tuning

- Analysis and interpretation of the results

- Discussion of future research directions, challenges, and potential solutions for machine learning in finance.

Results: My analysis found that the Random Forest model outperformed the other models in terms of accuracy and efficiency, suggesting its suitability for capturing complex relationships and patterns in the data and generalizing to new data. I also highlight several future research directions, challenges, and potential solutions for machine learning in finance.

Conclusion: My paper demonstrates the potential of machine learning in finance for improving stock return prediction, but also highlights the challenges and ethical considerations involved. By developing more effective and responsible machine learning models, researchers and practitioners can improve the performance and robustness of stock return prediction models, ultimately benefiting investors and society as a whole.