

Appendix: Statement of Independent Work

1A. Declaration of Original Work. By entering our Student ID below, we certify that we completed our assignment independently of all others (except where sanctioned during in-class sessions), obeying the class policy outlined in the introductory lecture. In particular, we are allowed to discuss the problems and solutions in this assignment, but have waited at least 30 minutes by doing other activities unrelated to class before attempting to complete or modify our answers as per the class policy.

1B. Exception to the Class Policy. We did not follow the CS3244 Class Policy in doing this assignment. This text explains why and how we believe we should be assessed for this assignment given the circumstances explained.

Signed, [1. A0286459J 2.A0286700E 3.A0282690X 4.A0257498H 5.A0288055W 6. A0251963Y]

2. References. We give credit where credit is due. We acknowledge that we used the following websites or contacts to complete this assignment:

- <https://www.kaggle.com/code/motahareshokri/stock-market-prediction-using-logistic-regression/notebook>, for demonstrating the feasibility of using Logistic regression for stock movement prediction.
- Chen, W., Hussain, W., Cauteruccio, F., & Zhang, X. (2023). Deep Learning for Financial Time Series Prediction: A State-of-the-Art Review of Standalone and Hybrid Models. *Computer Modelling in Engineering & Sciences*, 139(1), 187–224. <https://doi.org/10.32604/cmes.2023.031388>
- Ghosh, P., Neufeld, A., & Sahoo, J. K. (2022). *Forecasting directional movements of stock prices for intraday trading using LSTM and random forests*. *Finance Research Letters*, 46, 102280. <https://doi.org/10.1016/j.frl.2021.102280>, for demonstrating the feasibility of using Random Forest and LSTM models for stock movement prediction.
- XGBoost for stock trend & prices prediction. https://www.kaggle.com/code/mtszkw/xgboost-for-stock-trend-prices-prediction?utm_source=chatgpt.com, for demonstrating the feasibility of using XGBoost for stock movement prediction.
- Goswami, B., & Uddin, A. (2025). Significance of predictors: Revisiting stock return predictions using explainable AI. *Annals of Operations Research*. Advance online publication. <https://doi.org/10.1007/s10479-025-06717-2>, for telling us how to do explainable AI in XGBoost for stock application.
- Gupta, P., Majumdar, A., Chouzenoux, E., & Chierchia, G. (2020a, November 9). SuperDeConFuse: A Supervised Deep Convolutional Transform-based Fusion Framework for Financial Trading Systems. *arXiv.org*. <https://arxiv.org/abs/2011.04364>
- LSTM/GRU stock movement analysis

https://www.kaggle.com/code/krtisaxena/lstm-gru-models-for-stock-movement-analysis?utm_source=chatgpt.com, for demonstrating the feasibility of using LSTM for stock movement prediction.

Duemig, D. (2019). *Predicting stock prices with LSTM networks* (CS230: Deep Learning course project report, Winter 2019, Stanford University). Retrieved from https://cs230.stanford.edu/projects_winter_2019/reports/15624789.pdf?utm_source=chatgpt.com, for teaching us how to use LSTM for stock direction prediction.

- Lim, B., Arik, S. O., Loeff, N., & Pfister, T. (2019, December 19). Temporal fusion transformers for interpretable multi-horizon time series forecasting. arXiv.org. <https://arxiv.org/abs/1912.09363>