

Deep Learning for Time Series Forecasting: Supplementary Material

Paul Laliberté
Georgia Institute of Technology
paullaliberte@gatech.edu

Daehyun Kim
Georgia Institute of Technology
daehyun.kim@gatech.edu

1. Supplementary Materials

The [source code](#) is uploaded on Github. We primarily used pytorch to implement the deep learning models, and statistical packages from R for the ARIMA+GARCH models. Figures in this supplementary material are the MSE data analyze results for each company and the hyperparameter.

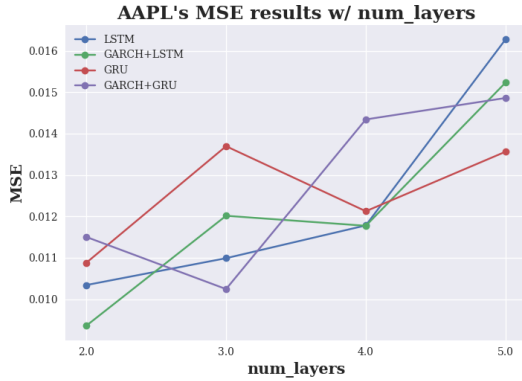


Figure 1. MSE results of Apple Inc. based on the number of layers.

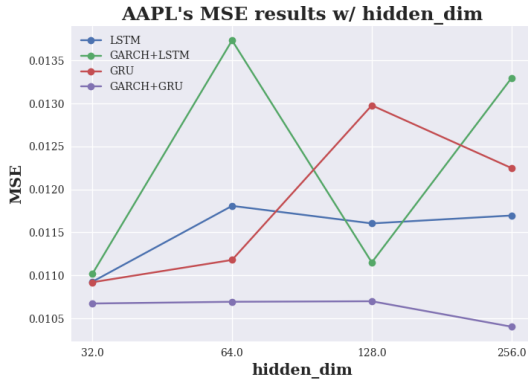


Figure 2. MSE results of Apple Inc. based on the dimension of the hidden layer.

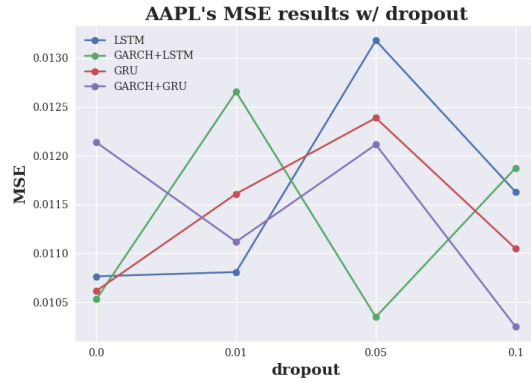


Figure 3. MSE results of Apple Inc. based on the dropout rate.

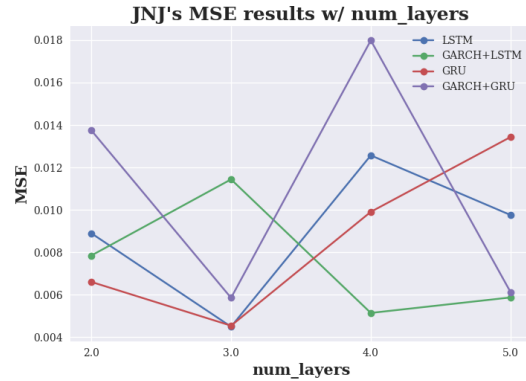


Figure 4. MSE results of Johnson and Johnson Inc. based on the number of layers.

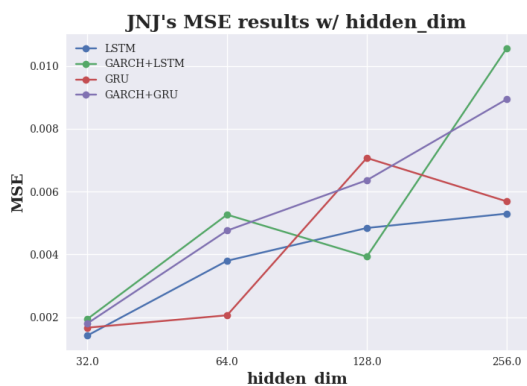


Figure 5. MSE results of Johnson and Johnson Inc. based on the dimension of the hidden layer.

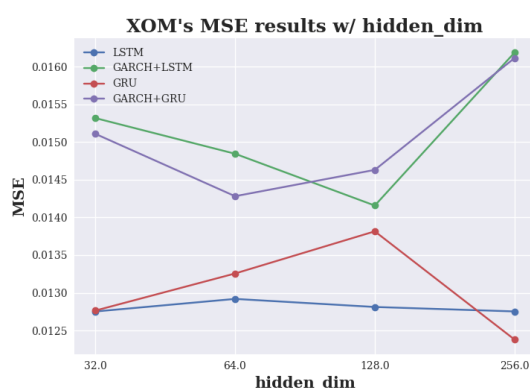


Figure 8. MSE results of ExxonMobil based on the dimension of the hidden layer.

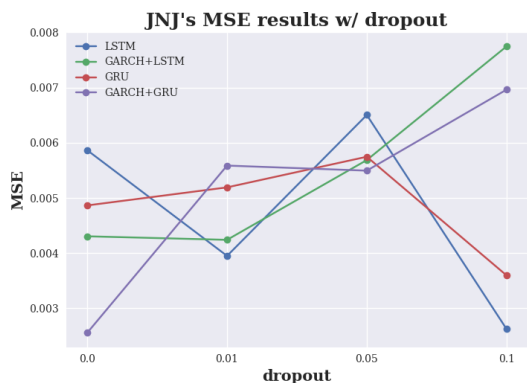


Figure 6. MSE results of Johnson and Johnson Inc. based on the dropout rate.

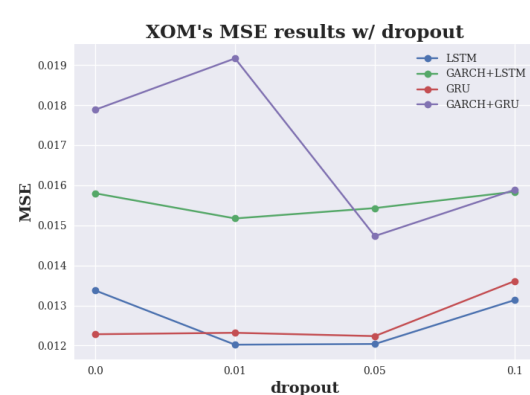


Figure 9. MSE results of ExxonMobil based on the dropout rate.

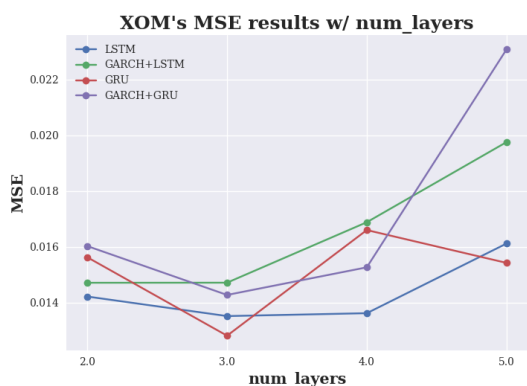


Figure 7. MSE results of ExxonMobil based on the number of layers.

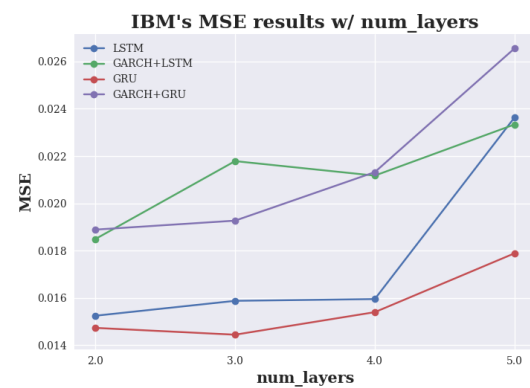


Figure 10. MSE results of International Business Machines Corporation based on the number of layers.



Figure 11. MSE results of International Business Machines Corporation based on the dimension of the hidden layer.

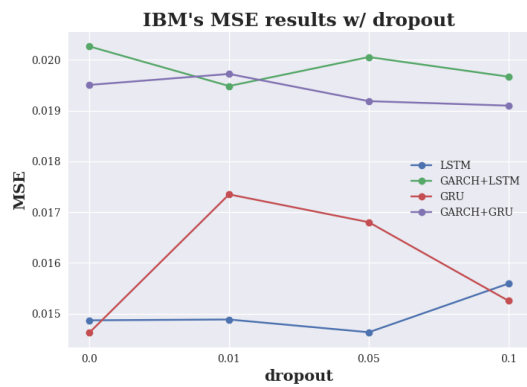


Figure 12. MSE results of International Business Machines Corporation based on the dropout rate.