Topic 1: Stock Returns Prediction using CNN

Build a CNN model for stock returns prediction or movement classification. This requires building image data from stock data. Use the built model in the mean-variance optimization framework and assess its out-of-sample trading performance.

Topic 2: Stock Returns Prediction using LSTM

Build a LSTM model for stock returns prediction or movement classification. This requires building image data from stock data. Use the built model in the mean-variance optimization framework and assess its out-of-sample trading performance.

Optional:
Explore other special network architectures, including Vision Transformer and Graphical Neural Network.