## MACD LSTM

Goal: One of our goals is to be able to take a stock at its current state in the market and be able to see if it will increase/decrease by the time closing time comes around. MACD will help us in verifying if it will actually go up or down, and will help pick out strong upward/downward trending stocks compared to weaker ones. The Price LSTM prediction will help us test both of those, the degree to which it increases or decreases and if it increases or decreases in the first place from the current time to closing

## **Next Steps:**

Evaluate what time interval between points proves the most reliable predictions, does it even make a difference in predicted MACD?

If we do 1 intraday MACD prediction and keep it going until it gives us a buy or sell signal based off of the signal line is it accurate?

Can backtest this with previous, news-unaffected, and for the most part "isolated" stocks

## Interpretation

- MACD Interpretation
  - From the predicted MACD you compare it to the original MACD.
    - If the later MACD value (4 PM) is higher than the earlier one (9 AM), it suggests increasing bullish momentum, indicating an upward shift. Conversely, if the 4 PM MACD value is lower, it suggests increasing bearish momentum, indicating a downward shift.
- Signal Line Interpretation
  - Place the original and predicted MACD in the context of the signal line
    - If the MACD at 4 PM is above the signal line and more so than at 9 AM, it suggests a strengthening upward trend. If it's below the signal line and more so than at 9 AM, it suggests a strengthening downward trend.