

## **Tentative Title: Predicting Meta stock prices using LSTM and DNN**

### *Problems I Intend to Tackle*

Often, before people invest in the stock market, they can either consider fundamental or technical analysis. In our project, we've decided to use neural networks, a form of technical analysis to predict Meta's stock prices. Meta's stock prices are particularly of interest because of the fluctuations for various reasons such as COVID-19, competition, falling user base etc. Given that Meta is a popular investment choice for investors, we would like to find out if it's worthwhile for new investors to do the same.

*Data set:* <https://www.kaggle.com/code/manthanx/stock-price-lstm-technical-analysis/data>

### *Methodology*

- Alter the date range for Meta stock prices
- Build and train both LSTM and DNN models based on Meta stock prices up till a certain date
- Compare the actual prices versus the predicted prices
- Check accuracy of models using confusion matrices

### *Conclusion*

At the end of this project, we should be able to compare both LSTM and DNN models and identify which model performs better and build an argument on why a particular model might be used to predict stocks. Apart from the decision of the better model, we can move on to see how this model might behave differently for other companies' stock prices or indexes.