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Stock Prediction with AI

Objectives

- To predict the stock market using Long short-term memory (LSTM) AI algorithms.
- We will be predicting long term forecast as the short-term forecast will be subjected to many inconsistencies and to predict short term variations, we need to take in account of all the news and current happenings.
- Overall, the outcome of this project will be to make a acceptable prediction of stock market.

Approach

- We will be using time series data such as stocks (using y finance library for python) and predict the value as on the current track record and compare with Long short-term memory (LSTM).
- We will be applying following algorithms in python and will be using stats model for statistical comparison.

Libraries which we will be using are, math, pandas_datareader, numpy, pandas and matplotlib.

- Common Architecture of LSTM:

Forget Gate

Input Gate

Output Gate

Deliverables

- Complete python code
- Complete forecast of Apple company stock price.
- Detailed analysis graph and the method used in predicting the stocks.

Evaluation methodology

- To evaluate the accuracy of the predicted graph we can compare the predicted values with the actual data. We will feed data until 2019 and try to predict the stock till 2021 and compare it to actual data.