Deep Learning w/ Tensor Flow Project Proposal

Exercise 1. *Machine Learning For Trading – How To Predict Stock Prices Using Regression?*

Response.

Quantitative Finance has been quite abuzz with the latest developments in Artificial Intelligence and more specifically Deep Learning. To supplement my future career in the financial industry and due to pure curiosity, I would like to propose that my project be my own attempt to predict the seemingly unpredictable currents of the stock market.

Trading stocks on the open market is one of the staples of an investor's experience. While the concept of trying to predict the motion of the stock market accurately is nothing new, and there have certainly been many attempts to do so, with recent development in Machine Learning I believe it would be an interesting approach towards this age old trial. The ability to model and predict an equity's future price, based on the current financial information and news, could be considered the Holy Grail for investors. To use Machine Learning to calculate and predict the performance of a certain company and have that transcribe to usable data for financial advisers and investors would be a great boon, assuming this process takes into account all the relevant factors. Financial balance sheets and various ratios that describe the health of company are the bases of technical analysis that investors undertake to analyze and predict company's future stock prize. Predicting the direction of stock price is particularly important for value investing and with Machine Learning I believe it is possible to expand this particular usage into main stream investing.

Note: An interesting caveat that this project might incorporate is that this prediction will be made off of nothing but news headlines.