STOCK VALUE PREDICTION USING DEEP LEARNING

ABSTRACT

Stock prices are driven by corporate earnings or profit expectations. If a trader thinks that the company's earnings are high or will rise further, they will raise the price of the stock. One way for shareholders to get a return on their investment is to buy low stocks and sell them at high prices. If the company performs poorly and the value of the stock declines, the shareholder will lose some or all of his investment at the time of sale. Therefore, accurate stock price information is important. Prediction of stock prices has been an important area of research for a long time. While supporters of the efficient market hypothesis believe that it is impossible to predict stock prices accurately, there are formal propositions demonstrating that accurate modeling and designing of appropriate variables may lead to models using which stock prices and stock price movement patterns can be very accurately predicted. In Stock Market Prediction, the aim is to predict the future value of the financial stocks of a company. This project has utilized the Long- Short Term Memory cell algorithm. LSTM are mini neural networks designed for larger neural networks.

These LSTMs at every feed forward iteration the cell can hold onto information from the previous step, as well as all previous steps. After pre-processing the collected data, it is split into training and testing datasets. LSTM algorithm is applied to the training dataset. The result is then analysed. By Using this algorithm, an accuracy of 0.968 has been achieved. The recent trend in stock market prediction technologies is the use of deep learning which makes predictions based on the values of current stock market indices by training on their previous values.