C-DAC ATC NETCOM, JAIPUR

PROJECT PROPOSAL

(Summer Training in Machine Learning)

2018

SUBMITTED BY

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Project Title - Predicting Stock Prices using LSTM

Project Description –

This project seeks to utilize Deep Learning models, LongShort Term Memory (LS TM) Neural Network algorithm to predict stock prices.

We will use Keras to build a LSTM to predict stock prices using historical closing price and trading volume and visualize both the predicted price values over time a nd the optimal parameters for the model.

Problem Statement –

The challenge of this project is to accurately predict the future closing value of a gi ven stock across a given period of time in the future.With libraries like tensor flo w anyone can build powerful predictive models trained on masive of datasets. For this project I will use a Long Short Term Memory networks – usually just called " LSTMs" to predict the closing price of the S&P 500 using a dataset of past prices.

Goals

1. Getting stock prices data.
2. Implement basic model using linear regression
3. Implement LSTM using keras library.
4. Compare the results and submit the report

Technologies Used-

These technologies are used in this project-

- Basic programming is done in Python.
- Spyder Python IDE and Jupyter notbook is used on anaconda platform for development of machine learning model.
- Various Machine Learning Modules (Tenserflow, Scikit Learn, Keras) are used for creating easy to understand model.