Ahmedabad University

CSE523: Machine Learning

Weekly Report-5

Submitted to: Prof Mehul Raval

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Group No.4
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Work done this week:

As mentioned earlier we tried to build the regression model with linear and polynomial regression both. However with linear regression we aren't getting much accuracy and the model seem to be very inaccurate in predicting the volatility. Then we further researched a bit about using regression in the time series analysis. We also looked bit more into data pre-processing and feature engineering of the parameters.

Additional tasks:

- Researched about feature engineering in time series analysis
- Looked at regression models in time series.
- Started research about ARIMA model for time series.
- Data Pre-processing
- Preparing report for Midsem-presentations

For next week:

We will look further into the feature engineering and regression model building and researching about the ARIMA model as it seems to be ideal for time series analysis. We will also have a look at polynomial regression and linear regression with some parameter tuning and feature engineering.

Reference:

https://ieeexplore.ieee.org/document/8626097

https://towardsdatascience.com/time-series-forecasting-predicting-stock-prices-using-an-arima-model-2e3b3080bd70