Group 5

SMM768-Applied Deep Learning

Simple & Decision Tree models

- We had to preprocess data according to models, while running as we were getting lot of errors.

- Data was uneven so we had to do lot of conversions as per model

- Uneven datasets were challenging to interpret, making it difficult to understand how the model is making predictions.

- Uneven datasets can have biases in the data collection process, which leads to biased models.

Autoencoders & Tensorflow

Approaches-

- For tensor flow, we used *metrics*- precision , recall , AUC instead of accuracy and used hyper parameters for drop-out, learning rate, number of units to get best model.

- We fine-tuned auto-encoder.

Challenges-

- Since data was unbalanced, we couldn't rely on accuracy and interpret which model is good as every model would've given more than 90% accuracy - data was imbalanced in such a way.

- Even after hyper parameters tuning, validation loss did not show usual trend of good model - falling down and then going up.

- We couldn't get perfect hit rate and decision rate for tensor flow & autoencoder even after tuning models

- Distinction of fraudulent & non-fraudulent claims weren't clear in histogram