**CSE523 Machine Learning**

**Prof. Mehul Raval**

**Analyzing TCP Network Packets**

**Weekly Report**

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Kaggle Link: <https://www.kaggle.com/code/kavangondalia/predict-protocol-name>

* Previously, the accuracy we got in the random forest method was good.

In order to get better accuracy we did parameter tuning. For random forest classifier, the parameters we tuned were

1. N\_estimators\_range - This shows the number of trees in the forest,
2. Max\_depth\_range - This shows depth of each tree in the forest,
3. Min\_samples\_split\_range - Minimum no. of samples required to split internal node ,
4. Min\_samples\_leaf\_range - Minimum no. of samples at leaf node,
5. Max\_features\_input - Max number of features to look for splitting.

After giving different values of each hyperparameter, we found a better accuracy model.







