PROJECT 5

Machine Learning on Intrusion Detection

Due date: April 24 (two weeks)

In this project you are expected to build a network intrusion detector, a predictive model capable of distinguishing "good" connections and "bad" connections. In the experiment, the data is collected from a military network to classify 6 different connections. The data for training and test can be downloaded from here: https://github.com/bgulmezoglu/Intrusion-Detection-ML

The explanation of the data also can be found in the README.md file.

The goal is to build a ML model to classify the connection types. You are required to choose 5 Machine/Deep Learning techniques, e.g. kNN, Decision Tree, SVM, AutoEncoder, CNN, Ensemble, Random Forest, Naive Bayes etc. You can use Matlab, Python and other programming languages.

Your report should contain the table with the success rates of ML techniques. For example,

ML/DL Type	Success Rate
kNN	xx%
Decision Tree	xx%
SVM	xx%
AutoEncoder	xx%
Ensemble	xx%

Please, also include the code you used for the experiments.