PROJECT 5
Machine Learning on Side-Channel Attacks

Due date: April 26

In this project you are expected to analyze the side-channel data obtained from web browser profiling. In the experiment, the data is collected from Performance counters to classify 40 different websites in Tor browser. The data for training and test can be downloaded from here: https://github.com/bgulmezoglu/PerfWeb

The explanation of the data also can be found in the README.md file.
You are encouraged to review the following paper which describes the experiments: https://arxiv.org/pdf/1705.04437.pdf

The goal is to replicate the study by implementing various Machine/Deep Learning techniques, e.g. kNN, Decision Tree, SVM, AutoEncoder, CNN, Ensemble, Random Forest, Naive Bayes etc. You are supposed to use at least 5 different techniques of your choice. 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.