In summary, we make the following contributions in this paper:

1. We apply DER, CIL and MEMO model from Image Classification field to Network Intrusion Detection domain.
2. We compare the results of those model in 4 dataset KDD99, UNSW\_NB15, TON\_IOT\_NETWORK, CIC-IDS2017.
3. We test the performance of these dataset in custom dataset and analyze the result.