

## Weekly report Week 7 (3/7/2023 - 7/7/2023)

This week I continue to train and test in different model with separate dataset as the picture below

Logistic Regression					Random Forest			
file	precision (mean)	recall (mean)	f1 (mean)	Accuracy (mean)	precision (mean)	recall (mean)	f1 (mean)	Accuracy (mean)
1	0.87	0.87	0.87	0.99	1	0.98	0.99	0.99
2	0.67	0.77	0.72	0.99	1	0.98	0.99	0.99
3	0.98	0.85	0.91	0.99	0.99	0.97	0.98	0.99
4	0.21	0.01	0.02	0.99	0.99	0.81	0.89	0.99
5	0.47	0.62	0.52	0.99	1	0.83	0.89	0.99
6	0.94	0.93	0.94	0.99	1	0.98	0.99	0.99
7	0	0	0	0.99	0.8	0.66	0.71	0.99
8	0.85	0.13	0.23	0.99	0.99	0.98	0.99	0.99
9	0.8	0.84	0.82	0.99	0.99	0.97	0.98	0.99
10	0.83	0.46	0.59	0.99	0.99	0.95	0.97	0.99
11	0.74	0.46	0.54	0.99	0.99	0.87	0.92	0.99
12	0.27	0.04	0.07	0.99	0.97	0.73	0.83	0.99
13	0.53	0.18	0.27	0.99	0.99	0.98	0.99	0.99

  

LSTM					svm			
file	precision (mean)	recall (mean)	f1 (mean)	Accuracy (mean)	precision (mean)	recall (mean)	f1 (mean)	Accuracy (mean)
1	1	0.91	0.95	0.99	0.98	0.63	0.77	0.99
2	0.94	0.9	0.92	0.99	0	0	0	0.99
3	0.99	0.85	0.91	0.99	0.99	0.84	0.91	0.99
4	1	0.27	0.42	0.99	0	0	0	0.99
5	0.96	0.39	0.54	0.99	0.12	0.87	0.22	0.99
6	0.95	0.93	0.94	0.99	0.94	0.82	0.88	0.99
7	0	0	0	0.99	0	0	0	0.99
8	0.71	0.2	0.31	0.99	1	0.1	0.19	0.99
9	0.99	0.91	0.95	0.99	1	0.02	0.04	0.99
10	0.88	0.6	0.72	0.99	0.2	0.38	0.26	0.99
11	0.78	0.2	0.3	0.99	0.1	0.33	0.15	0.99
12	0.75	0.21	0.33	0.99	0	0	0	0.99
13	0.97	0.9	0.93	0.99	0.83	0.79	0.81	0.99

and I have try to train one dataset and test it with other dataset

Random Forest	File 1		
precision (mean)	recall (mean)	f1 (mean)	Accuracy (mean)-----
1	0.98	0.99	0.99
0.75	0.2	0.29	0.99
0	0	0	0.99
0.08	0	0	0.99
0	0	0	0.99
0.07	0	0	0.99
0	0	0	0.99
0.18	0	0	0.99
0.57	0.03	0.06	0.99
0	0	0	0.99
0	0	0	0.99
0	0	0	0.99
0	0	0	0.99

the result of it is that it can

detect other file very poorly which this lead to my research proposal which is botnet detection with ensemble machine learning method

So this week, I will continue to write the research proposal while doing data preprocessing for my research. I hope that the research proposal will be finished by this week.