

LIST OF FIGURES

1.1	Intrusion Detection System	1
1.2	Problem of Recent Studies	3
2.1	The CIA Triad	8
2.2	Network and Host IDS	9
2.3	TabNet Sparse Feature Selection	11
2.4	TabNet Attentive Transformer	13
2.5	TabNet Feature Transformer	14
2.6	TabNet Encoder	15
2.7	TabNet Decoder	16
2.8	The Binary Confusion Map	17
3.1	General Flowchart of Study	19
3.2	Binary Packet Classification	20
3.3	Attack Classification Illustration	20
3.4	The TabNet System Flowchart	21
3.5	Feature Masking Process Flowchart	23
4.1	Binary Confusion Matrix for CIC Datasets on TabNet	37
4.2	Multiclass Confusion Matrix for CIC Datasets on TabNet	38
4.3	Binary Confusion Matrix for CREME Datasets on TabNet	39
4.4	Multiclass Confusion Matrix for CREME Datasets on TabNet	40
4.5	Binary Confusion Matrix for CIC Datasets on XGBoost	41
4.6	Multiclass Confusion Matrix for CIC Datasets on XGBoost	42
4.7	Binary Confusion Matrix for CREME Datasets on XGBoost	43
4.8	Multiclass Confusion Matrix for CREME Datasets on XGBoost	44
4.9	Direct F1-Score Comparison	45