Binary Classification Model Results

[1] Report (K-Neighbors Classifier):
CV Scores:

[84.15 86.15 87.84 87.33 88.34]

Train score:

91.83 %

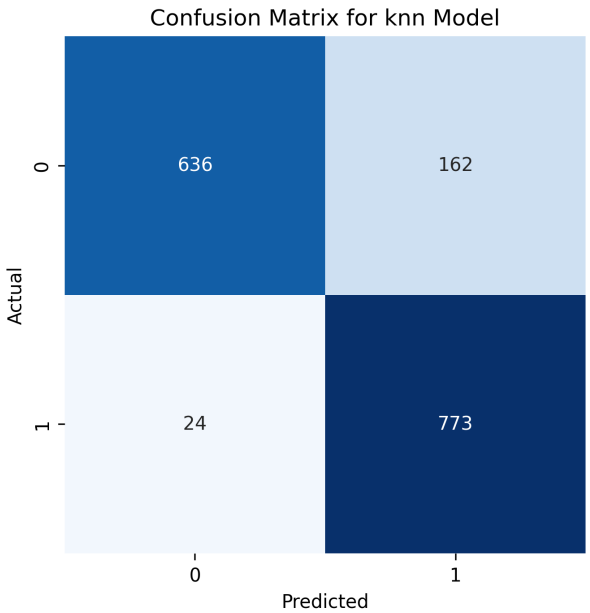
Test score:

88.34 %

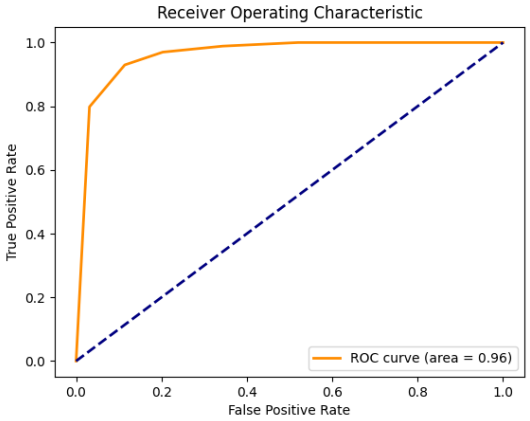
Classification result:

	precision	recall	f1-score	support
0	0.96	0.80	0.87	798
1	0.83	0.97	0.89	797
accuracy			0.88	1595
macro avg	0.90	0.88	0.88	1595
weighted avg	0.90	0.88	0.88	1595

Confusion Matrix:



ROC Curve:


Receiver Operating Characteristic
True Positive Rate
False Positive Rate
0.0
0.2
0.4
0.6
0.8
1.0
ROC curve (area = 0.96)

[2] Report (Decision Tree Classifier):
CV Scores:

[89.21 89.7 88.51 90.37 89.7]

Train score:

100.00 %

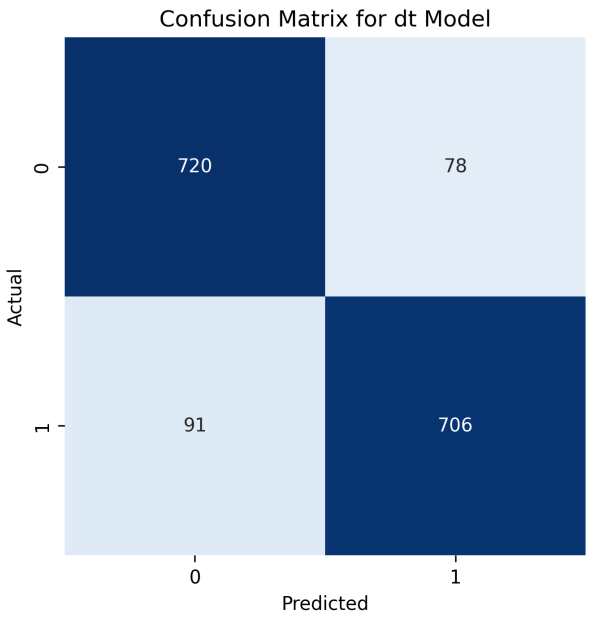
Test score:

89.40 %

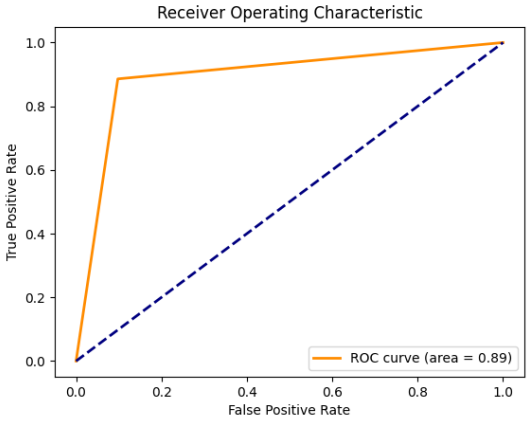
Classification result:

	precision	recall	f1-score	support
0	0.89	0.90	0.89	798
1	0.90	0.89	0.89	797
accuracy			0.89	1595
macro avg	0.89	0.89	0.89	1595
weighted avg	0.89	0.89	0.89	1595

Confusion Matrix:



ROC Curve:


Receiver Operating Characteristic
True Positive Rate
False Positive Rate
0.0
0.2
0.4
0.6
0.8
1.0
ROC curve (area = 0.89)

[3] Report (Random Forest Classifier):
CV Scores:

[93.59 93.75 93.75 93.75 93.41]

Train score:

100.00 %

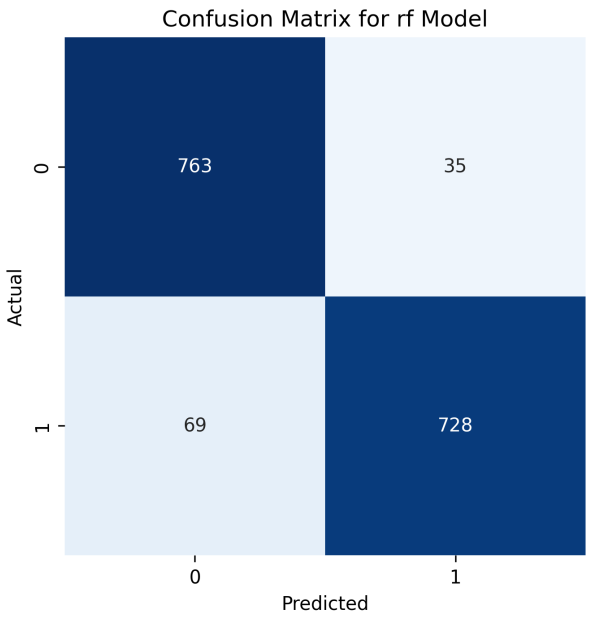
Test score:

93.48 %

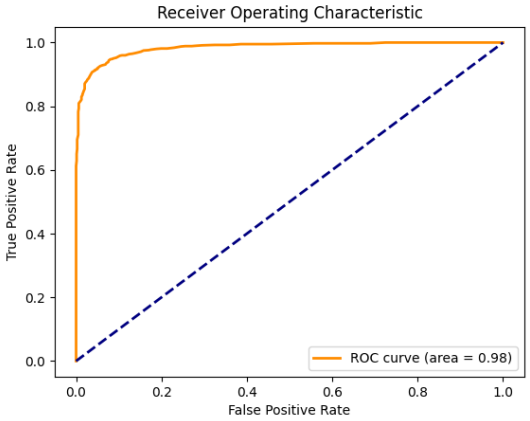
Classification result:

	precision	recall	f1-score	support
0	0.92	0.96	0.94	798
1	0.95	0.91	0.93	797
accuracy			0.93	1595
macro avg	0.94	0.93	0.93	1595
weighted avg	0.94	0.93	0.93	1595

Confusion Matrix:



ROC Curve:


Receiver Operating Characteristic
True Positive Rate
False Positive Rate
0.0
0.2
0.4
0.6
0.8
1.0
ROC curve (area = 0.98)