Binary Classification Model Results

[1] Report (K-Neighbors Classifier):

CV Scores:

[85.67 85.98 86.99 85.98 89.19]

Train score:

91.89 %

Test score:

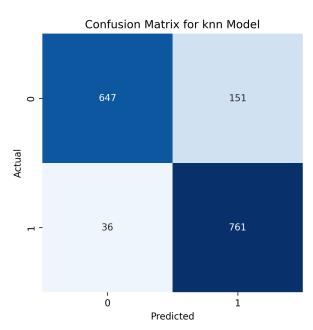
88.28 %

Classification result:

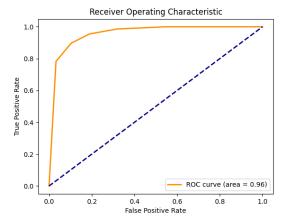
| | precision | recall | recall f1-score | |
|---|-----------|--------|-----------------|-----|
| | | | | |
| 0 | 0.95 | 0.81 | 0.87 | 798 |
| 1 | 0.83 | 0.95 | 0.89 | 797 |

| accuracy | 0.8 | 8 159 | 95 | |
|--------------|------|-------|------|------|
| macro avg | 0.89 | 0.88 | 0.88 | 1595 |
| weighted avg | 0.89 | 0.88 | 0.88 | 1595 |

Confusion Matrix:



ROC Curve:



[2] Report (Decision Tree Classifier):

CV Scores:

[89.04 90.71 92.4 91.55 90.88]

Train score:

100.00 %

Test score:

90.47 %

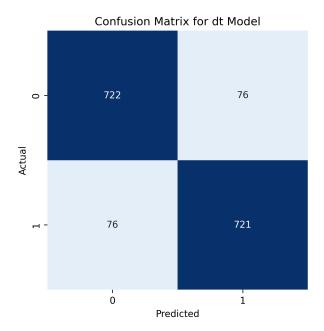
Classification result:

| precision | recall | f1-score | support |
|-----------|--------|----------|---------|
|-----------|--------|----------|---------|

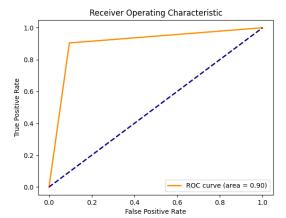
| 0 | 0.90 | 0.90 | 0.90 | 798 |
|---|------|------|------|-----|
| 1 | 0.90 | 0.90 | 0.90 | 797 |

| accuracy | 0.9 | 0 159 | 95 | |
|--------------|------|-------|------|------|
| macro avg | 0.90 | 0.90 | 0.90 | 1595 |
| weighted avg | 0.90 | 0.90 | 0.90 | 1595 |

Confusion Matrix:



ROC Curve:



[3] Report (Random Forest Classifier):

CV Scores:

[91.91 92.4 95.27 92.91 95.1]

Train score:

100.00 %

Test score:

94.11 %

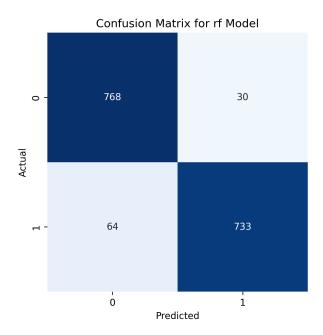
Classification result:

| precision | recall | f1-score | support |
|-----------|--------|----------|---------|
|-----------|--------|----------|---------|

| 0 | 0.92 | 0.96 | 0.94 | 798 |
|---|------|------|------|-----|
| 1 | 0.96 | 0.92 | 0.94 | 797 |

| accuracy | 0.9 | 4 159 | 95 | |
|--------------|------|-------|------|------|
| macro avg | 0.94 | 0.94 | 0.94 | 1595 |
| weighted avg | 0.94 | 0.94 | 0.94 | 1595 |

Confusion Matrix:



ROC Curve:

