Diabetes Prediction Report

Extracted Data:

Pregnancies: 0

Glucose: 300

Blood Pressure: 110

Skin Thickness: 30

Insulin: 100

BMI: 21.0

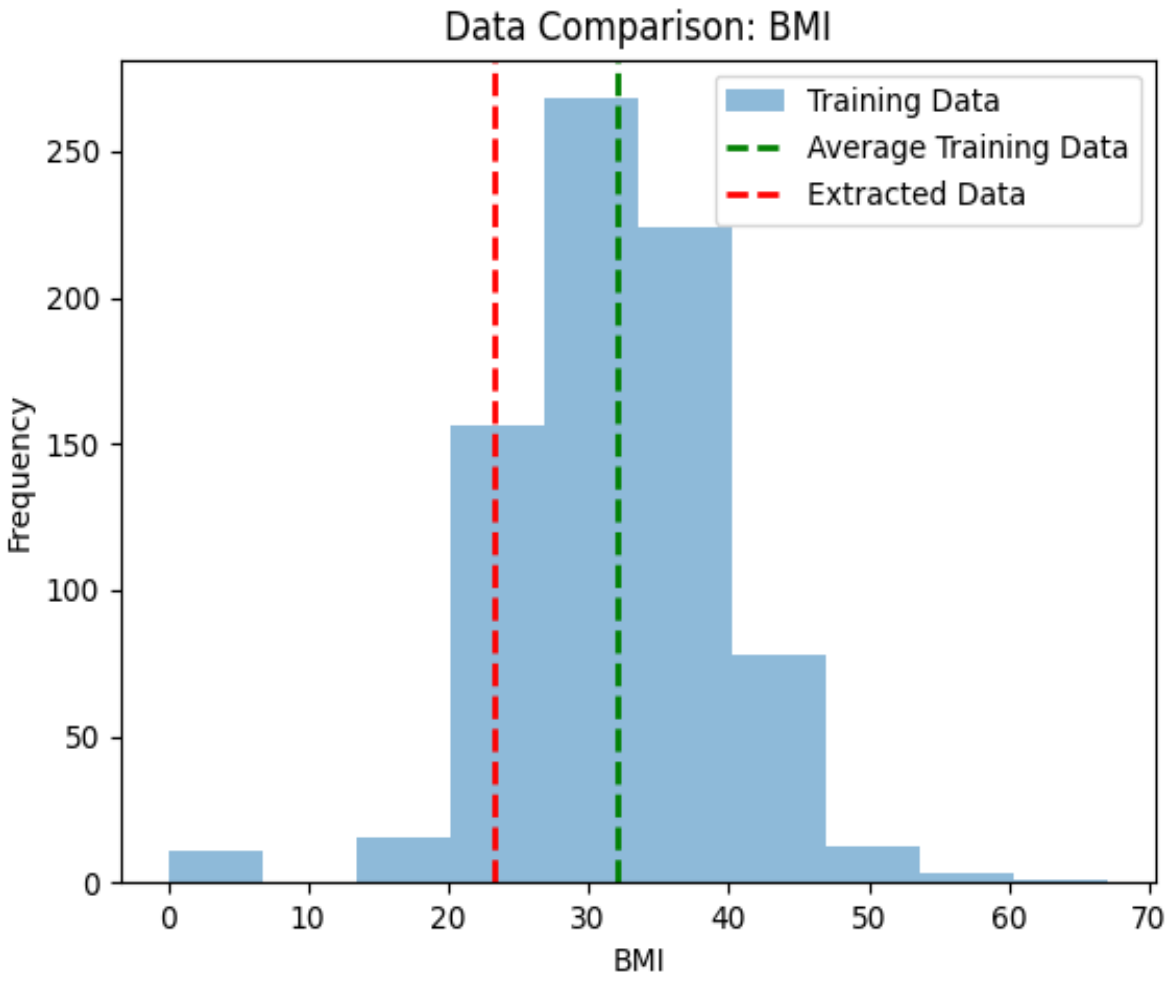
Diabetes Pedigree Function: 0.95

Age: 19

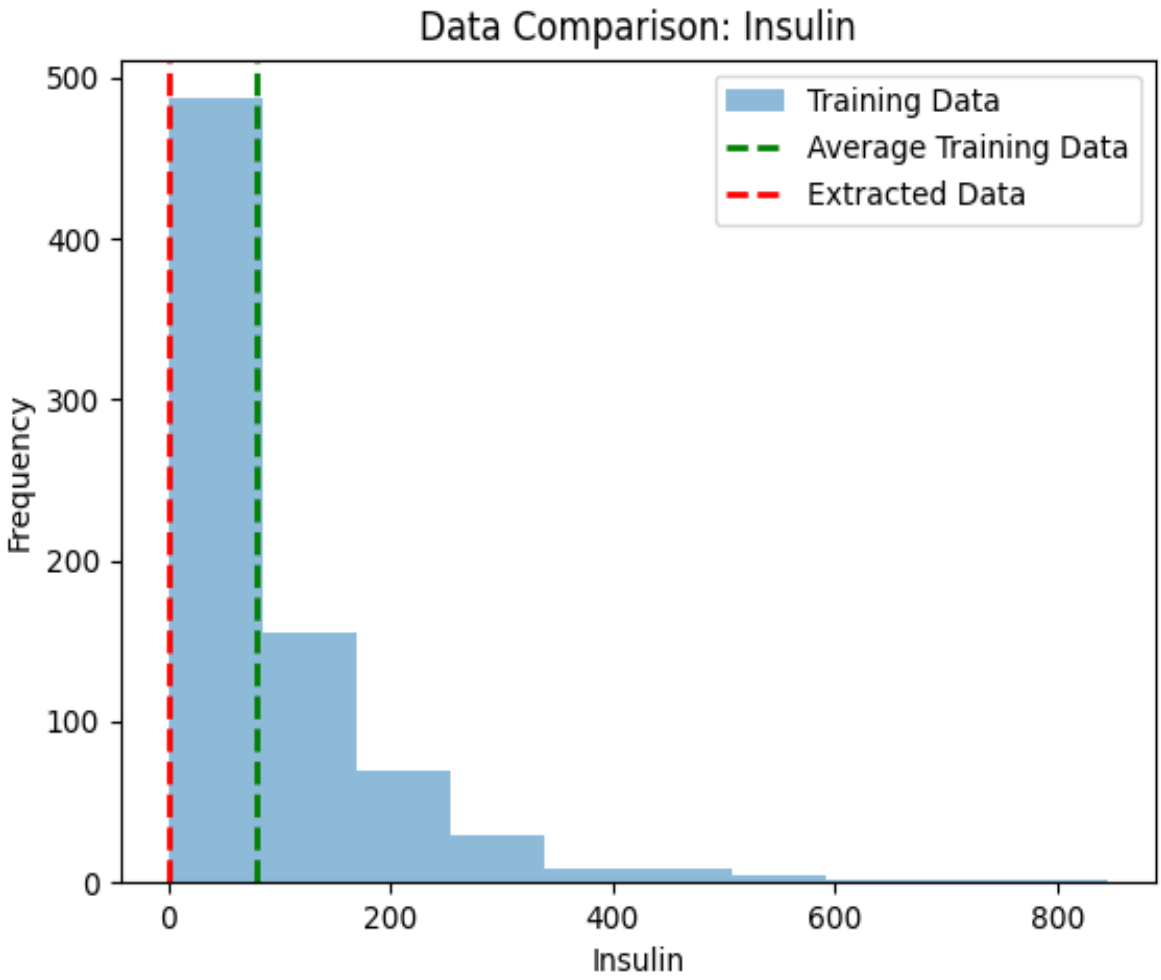
Prediction Report:

The patient does not have diabetes.

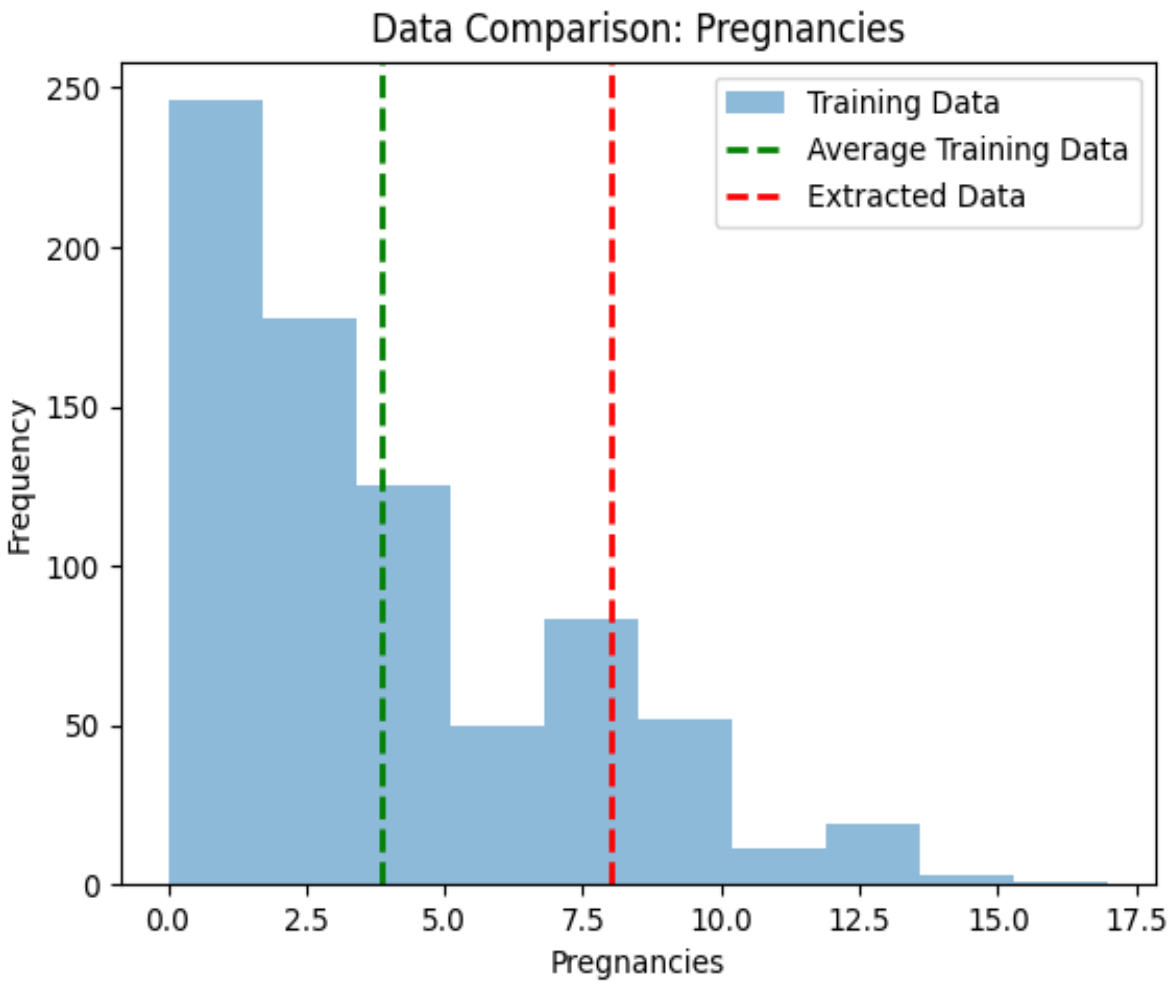
Data Comparison: BMI



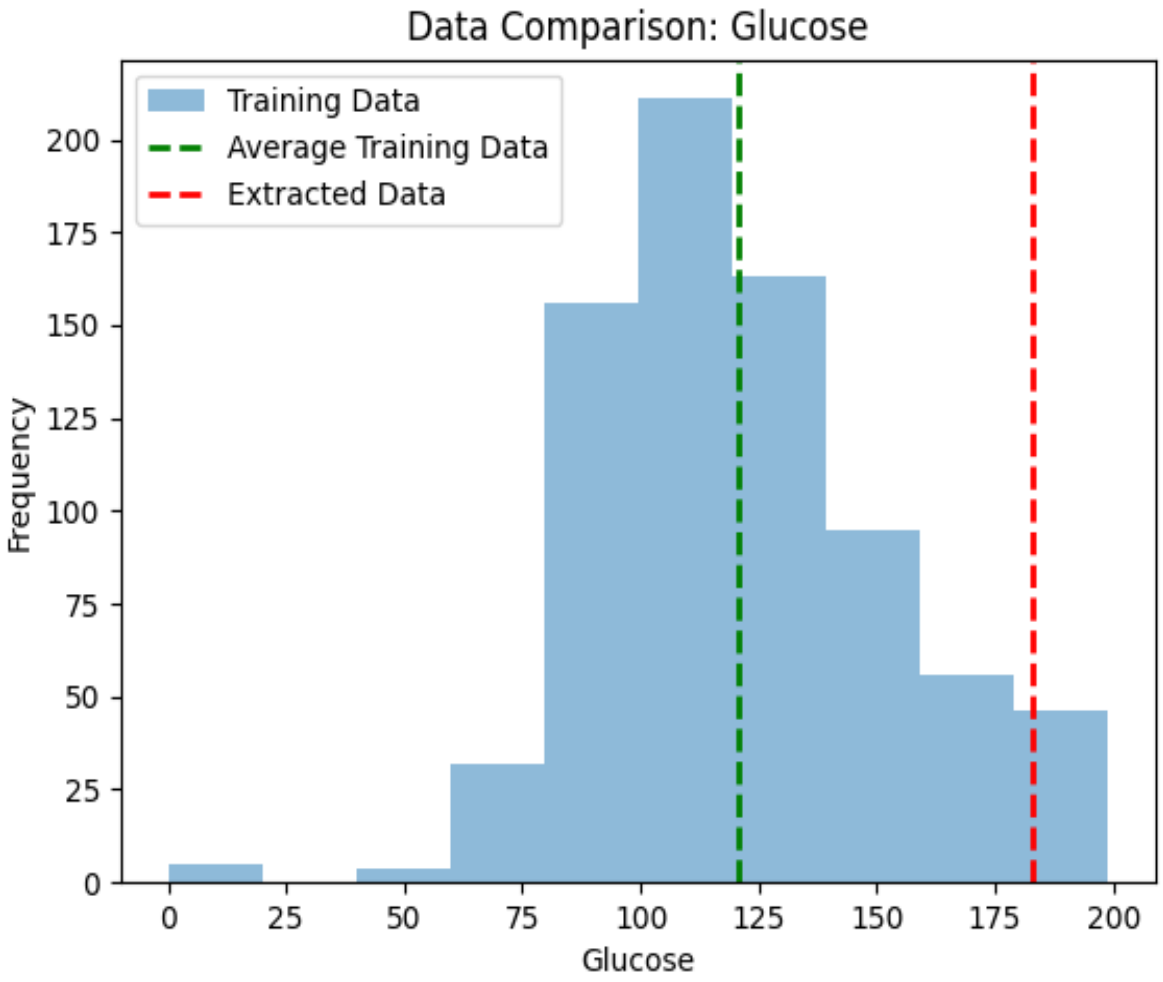
Data Comparison: Insulin



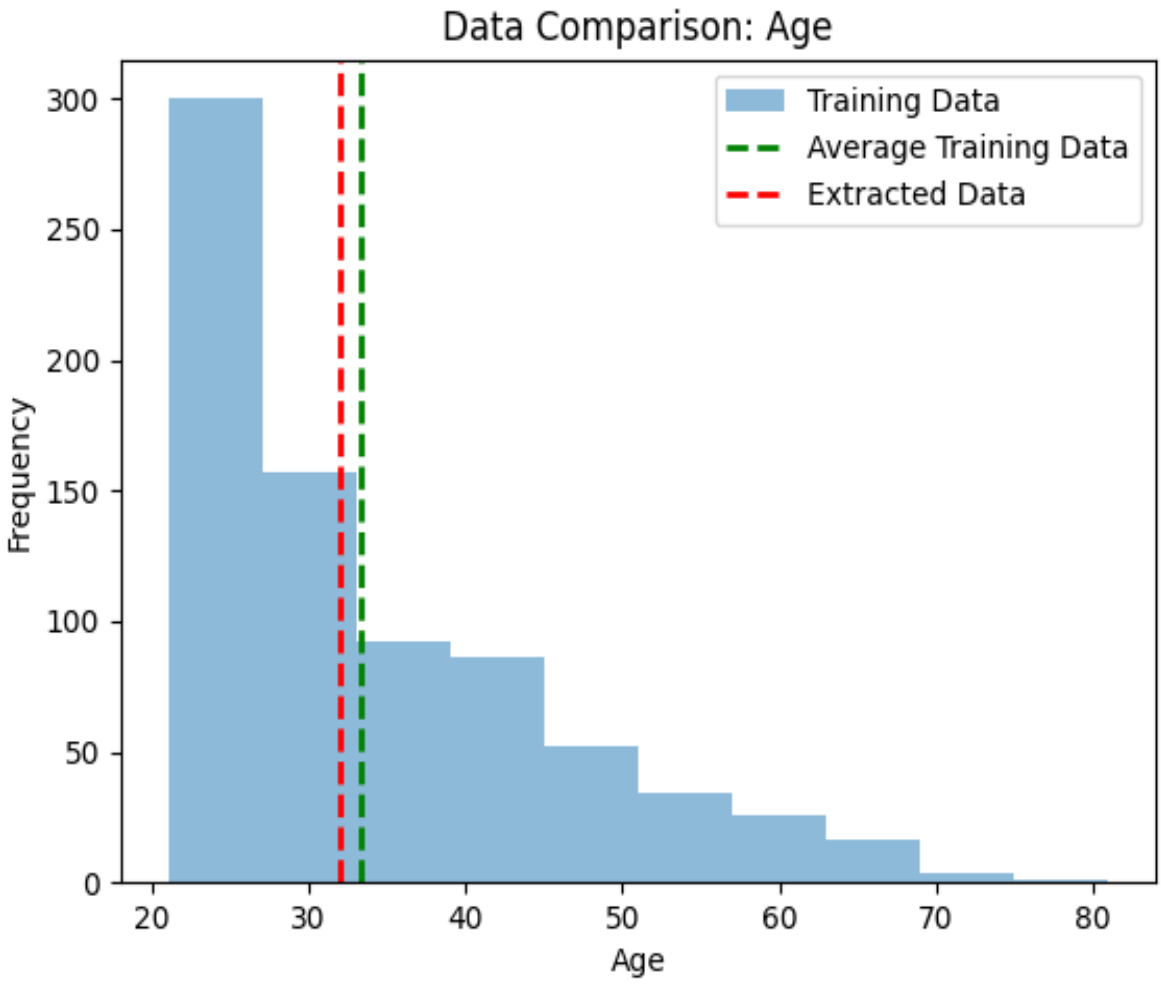
Data Comparison: Pregnancies

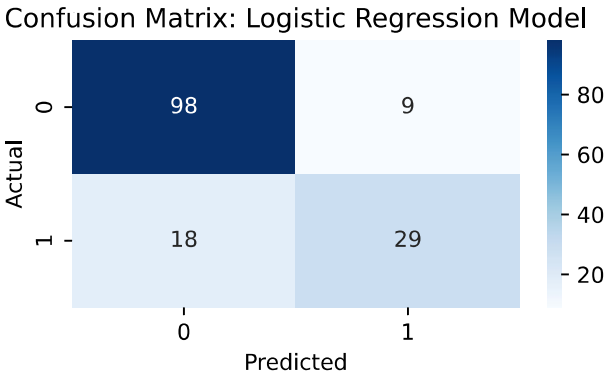


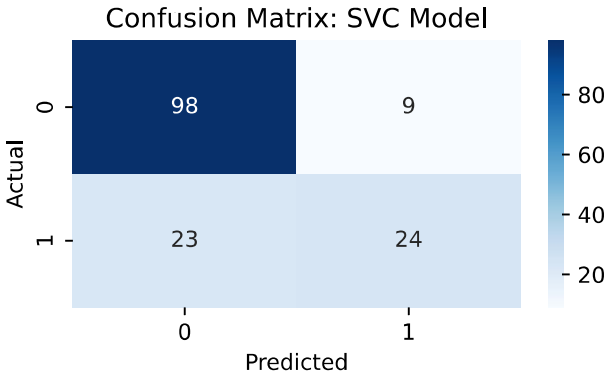
Data Comparison: Glucose

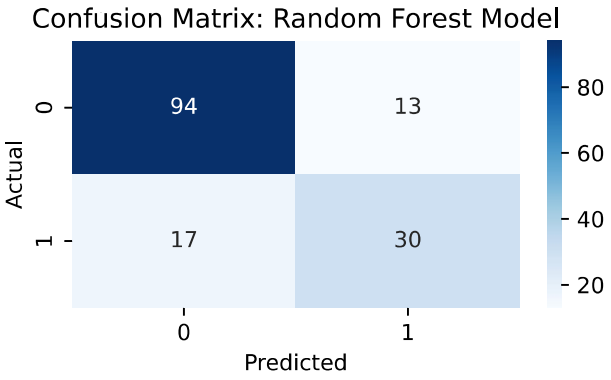


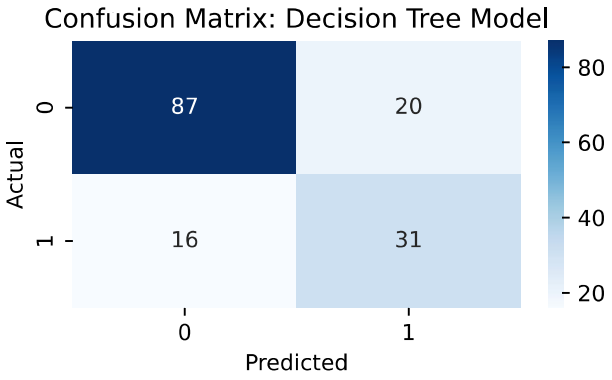
Data Comparison: Age

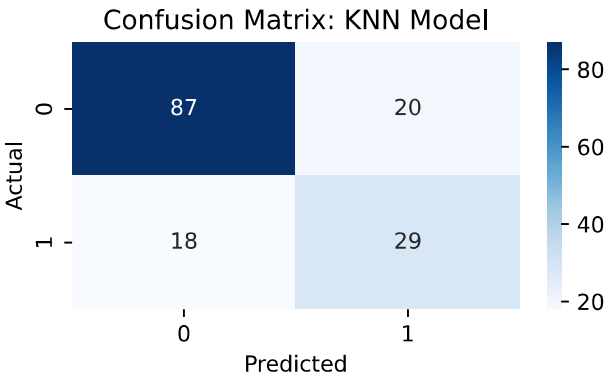


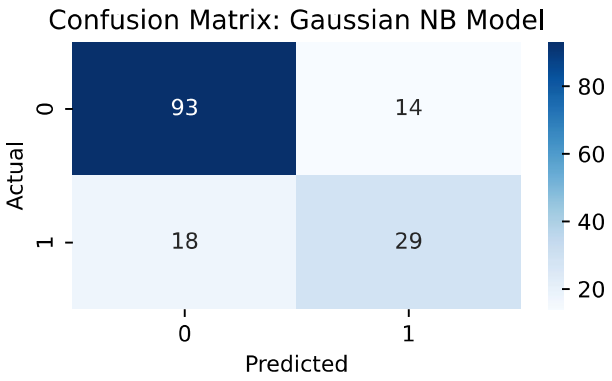

Confusion Matrix: Logistic Regression Model
Actual
Predicted
0
1
98
9
18
29
80
60
40
20

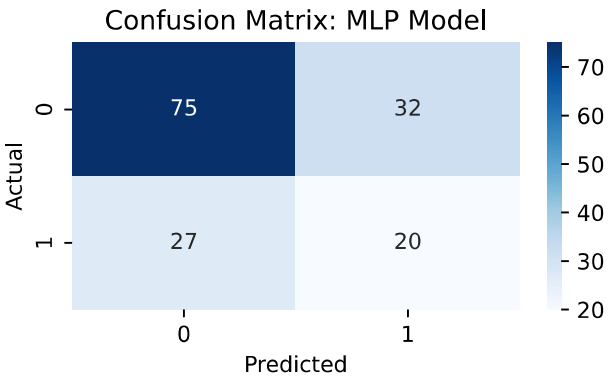

Confusion Matrix: SVC Model
Actual
Predicted
0
1
98
9
23
24
80
60
40
20

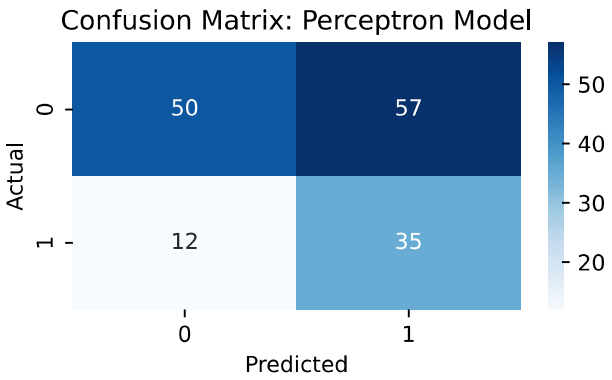

Confusion Matrix: Random Forest Model
Actual
Predicted
0
1
94
13
17
30
80
60
40
20

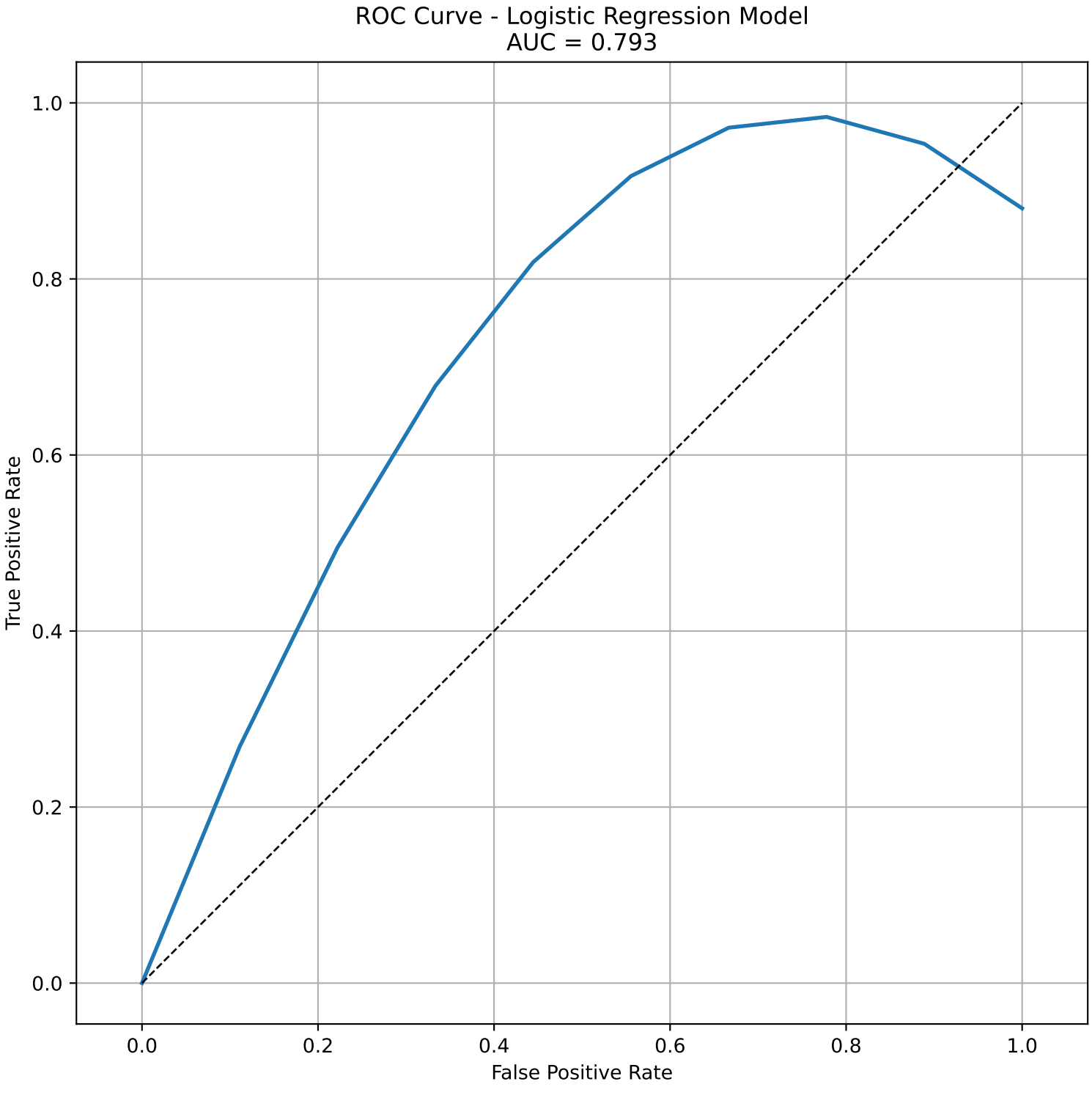

Confusion Matrix: Decision Tree Model
Actual
Predicted
0
1
87
20
16
31
80
60
40
20

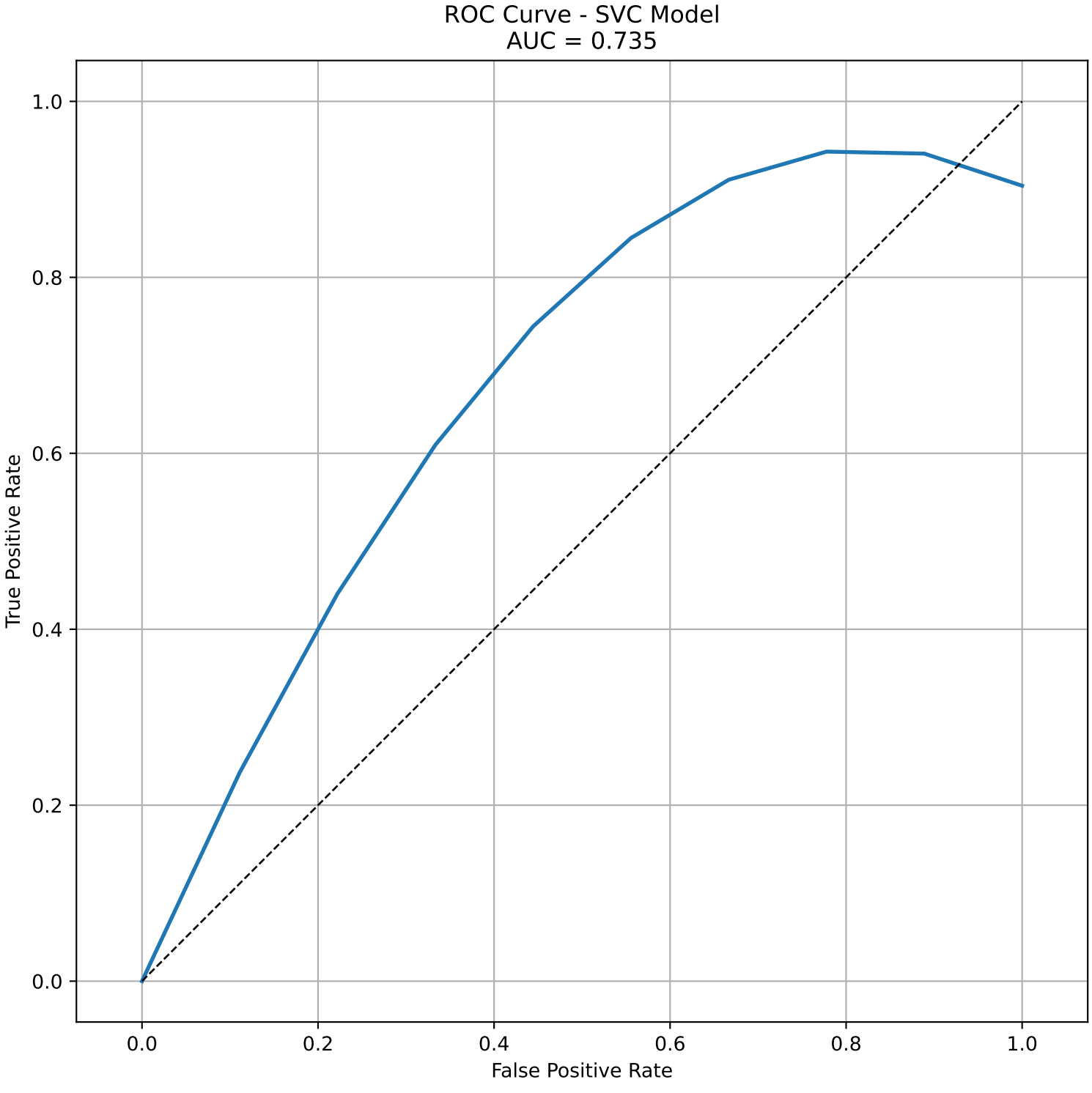

Confusion Matrix: KNN Model
Actual
Predicted
0
1
87
20
18
29
80
60
40
20

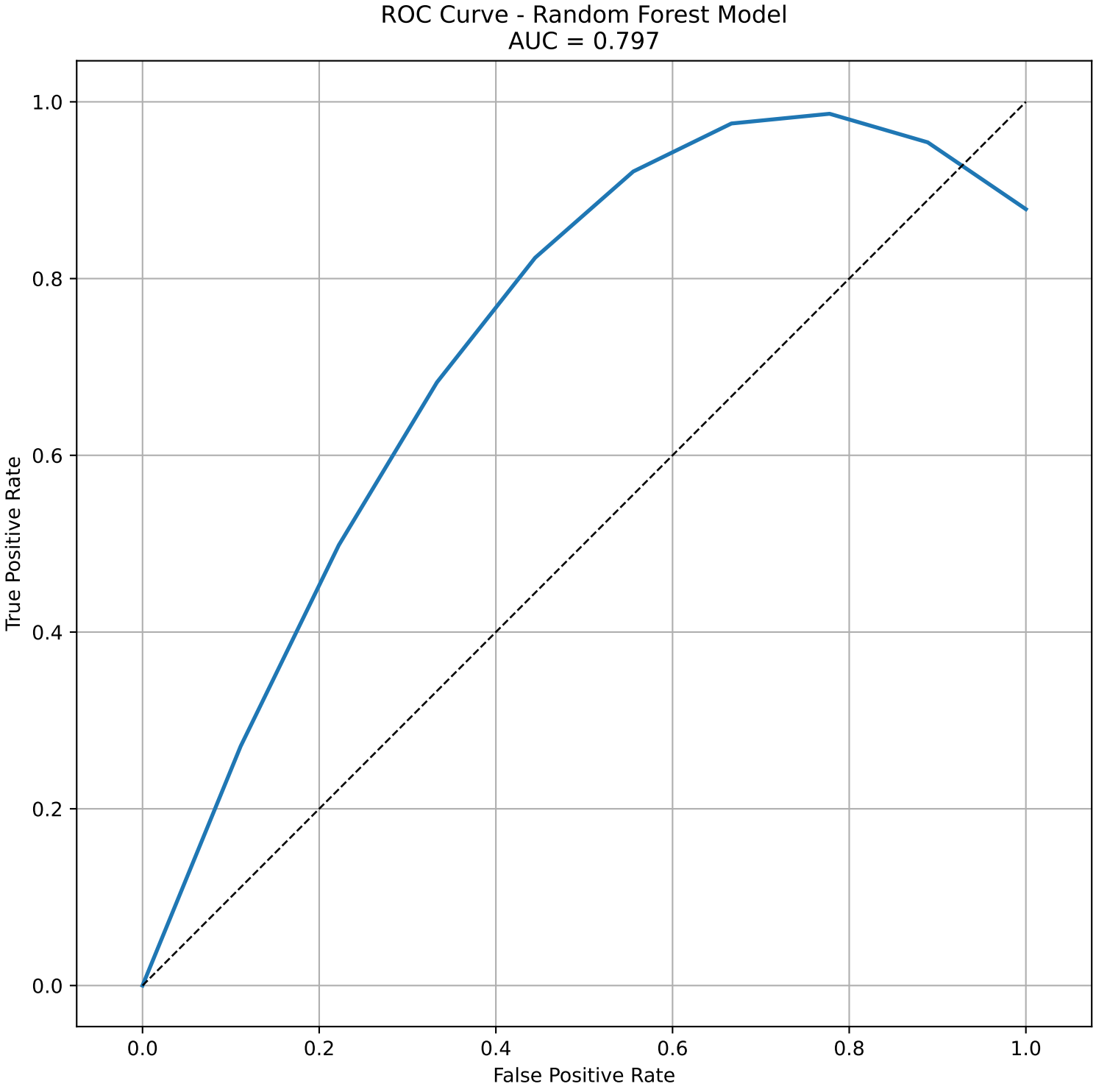

Confusion Matrix: Gaussian NB Model
Actual
Predicted
0
1
93
14
18
29
80
60
40
20

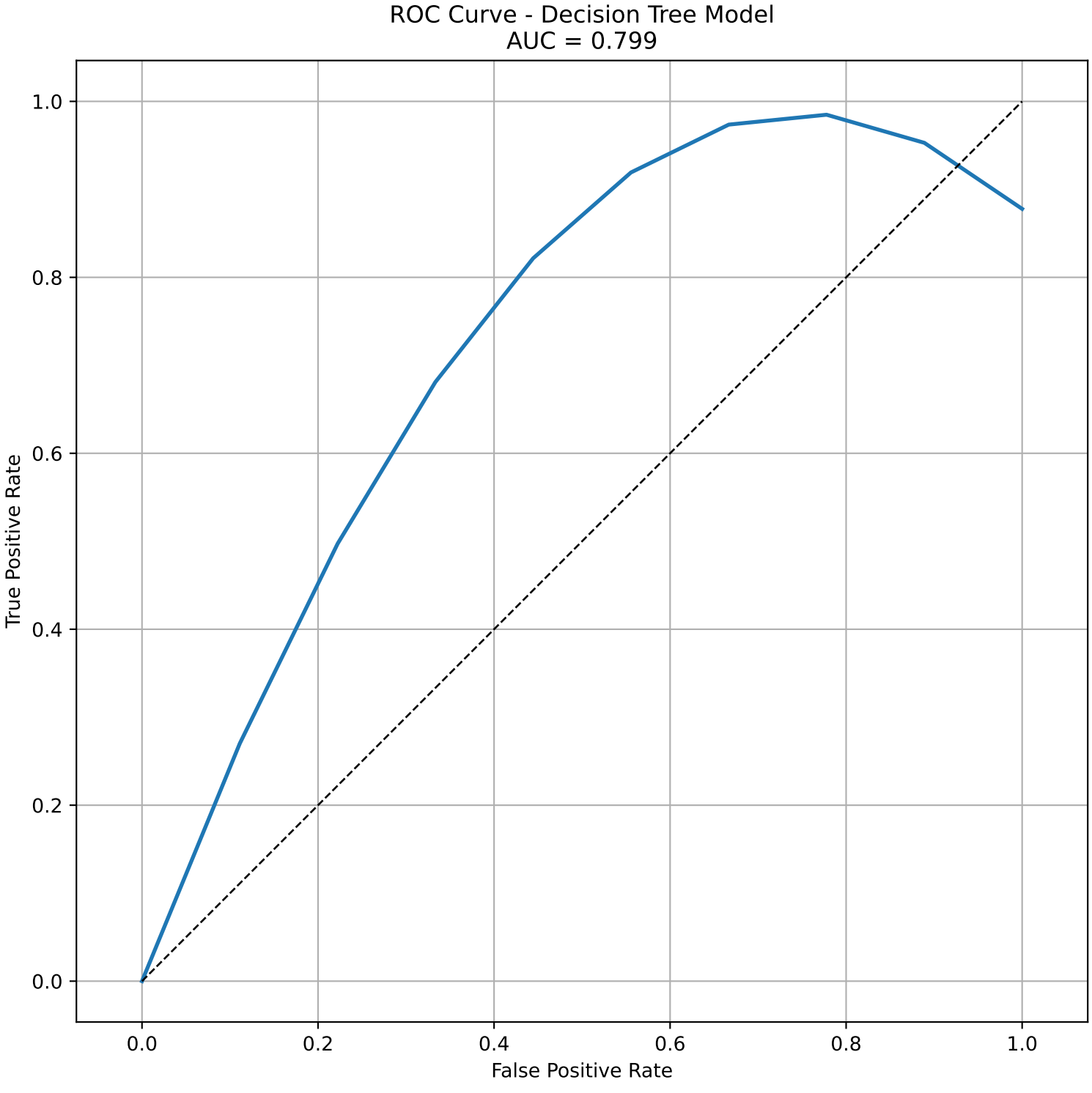

Confusion Matrix: MLP Model
Actual
Predicted
0
1
75
32
27
20
70
60
50
40
30
20

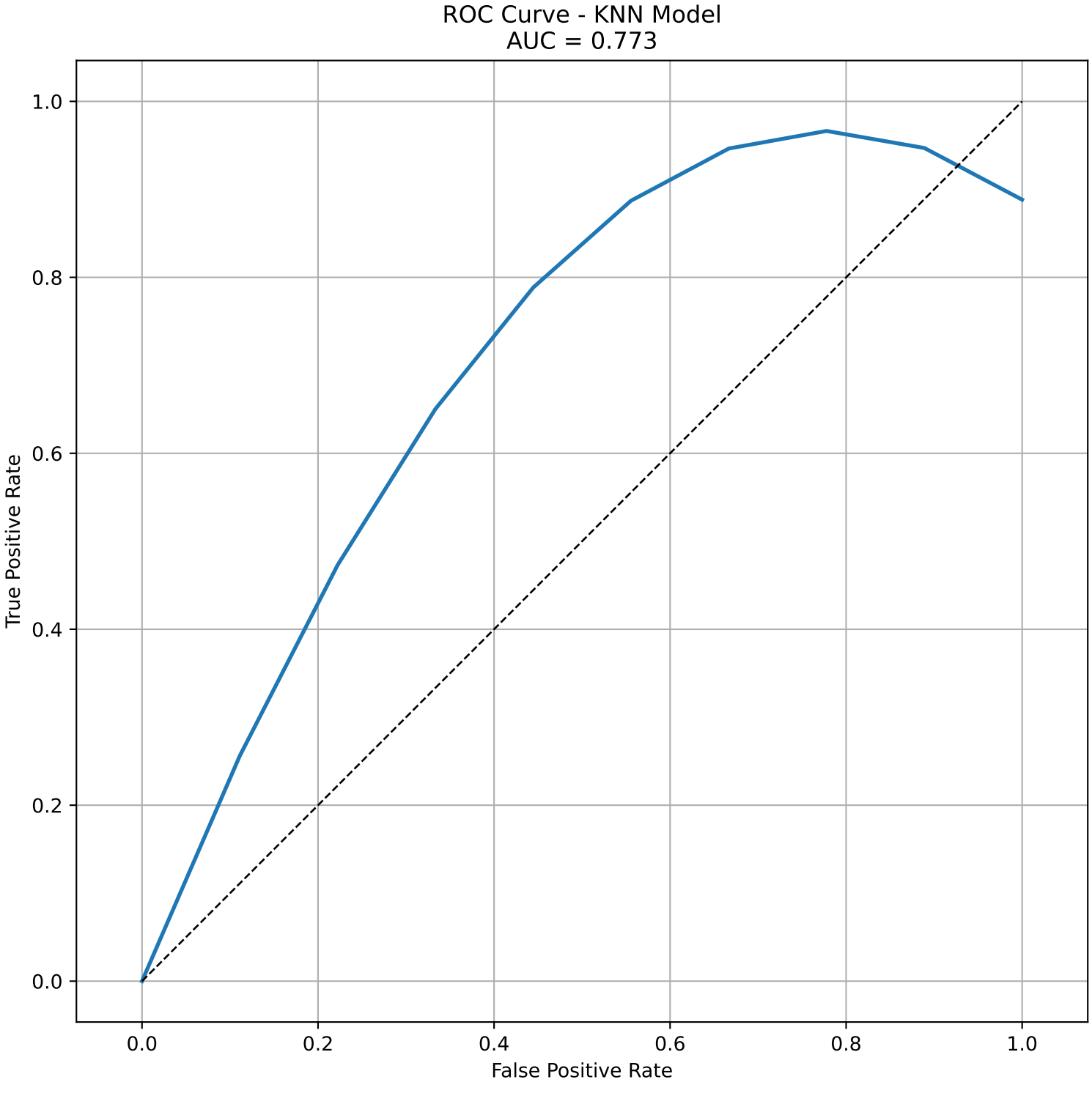

Confusion Matrix: Perceptron Model
Actual
Predicted
0
1
50
57
12
35
50
40
30
20

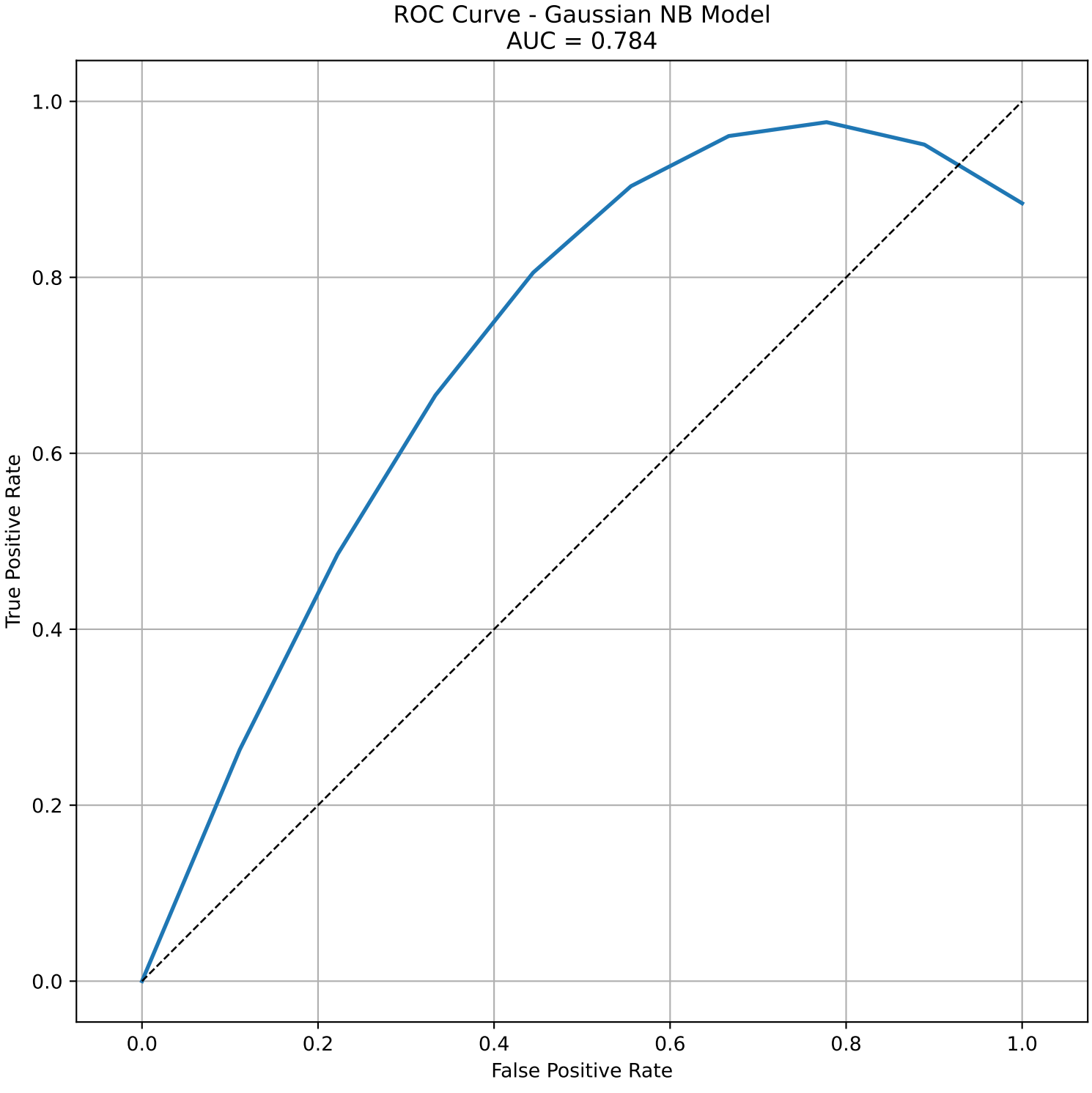

ROC Curve - Logistic Regression Model
AUC = 0.793
True Positive Rate
False Positive Rate
0.0
0.2
0.4
0.6
0.8
1.0

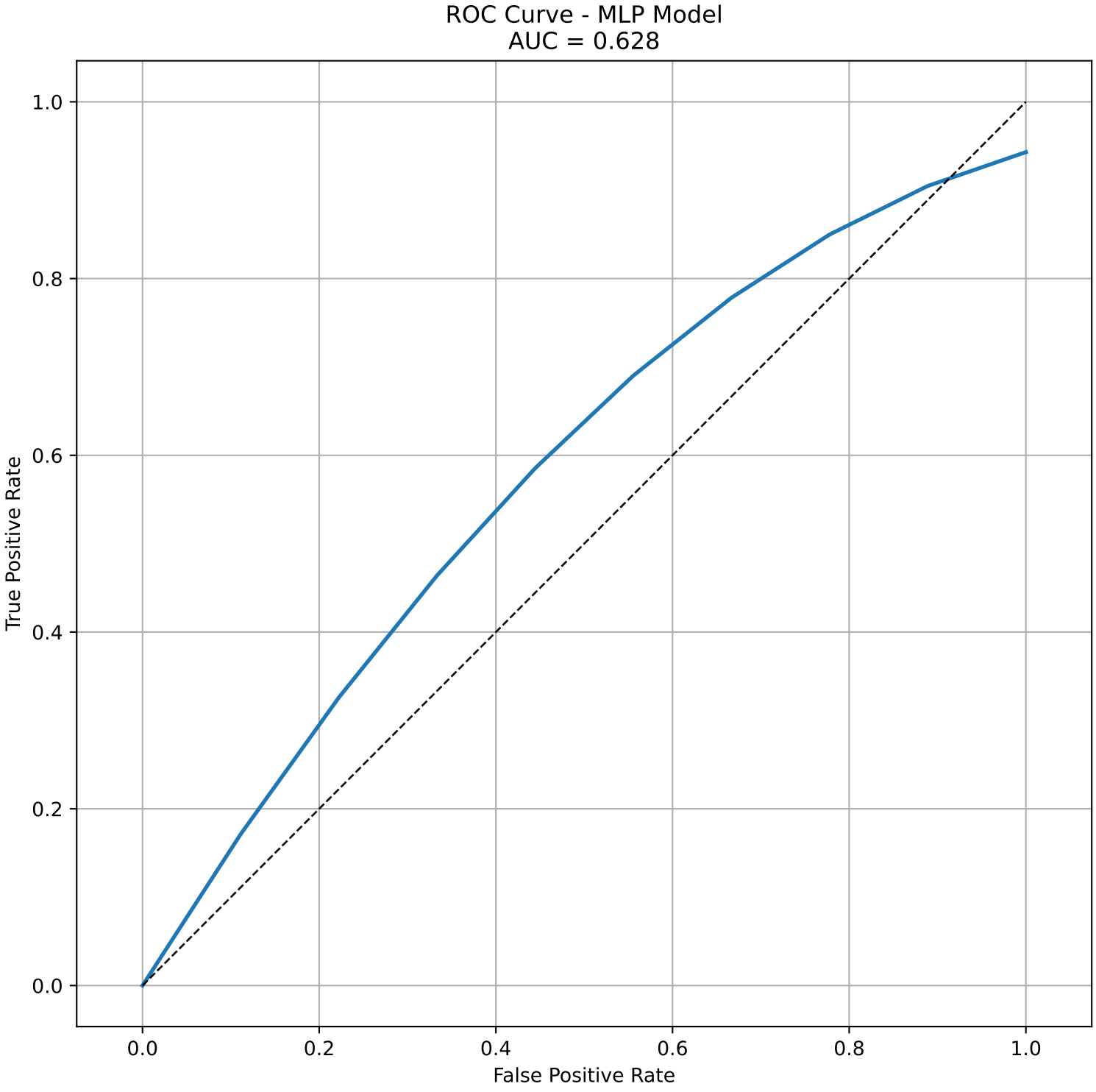

ROC Curve - SVC Model
AUC = 0.735
True Positive Rate
False Positive Rate
0.0
0.2
0.4
0.6
0.8
1.0

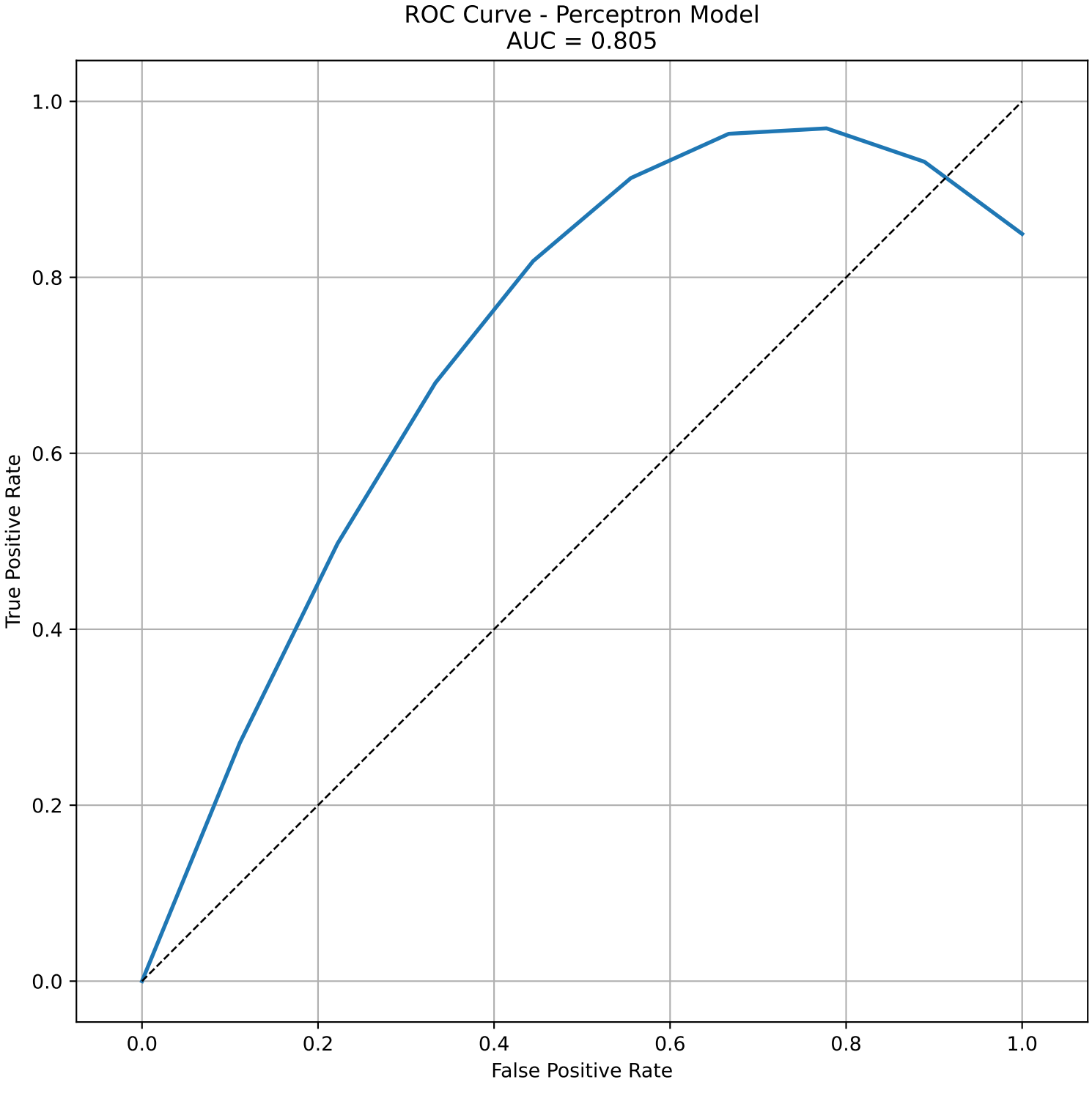

ROC Curve - Random Forest Model
AUC = 0.797
True Positive Rate
False Positive Rate
0.0
0.2
0.4
0.6
0.8
1.0

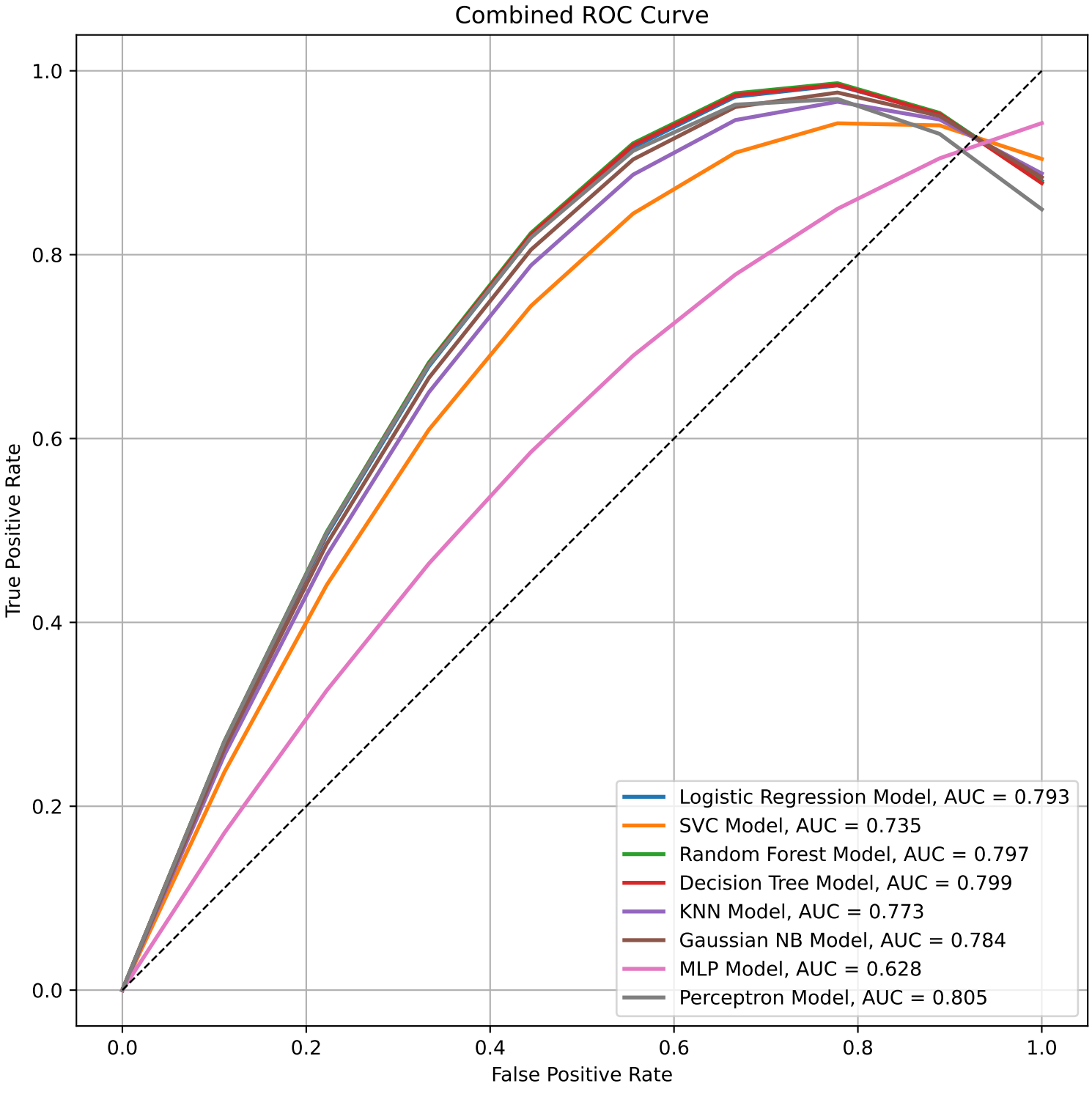

ROC Curve - Decision Tree Model
AUC = 0.799
True Positive Rate
False Positive Rate
0.0
0.2
0.4
0.6
0.8
1.0


ROC Curve - KNN Model
AUC = 0.773
True Positive Rate
False Positive Rate
0.0
0.2
0.4
0.6
0.8
1.0


ROC Curve - Gaussian NB Model
AUC = 0.784
True Positive Rate
False Positive Rate
0.0
0.2
0.4
0.6
0.8
1.0


ROC Curve - MLP Model
AUC = 0.628
True Positive Rate
False Positive Rate
0.0
0.2
0.4
0.6
0.8
1.0


ROC Curve - Perceptron Model
AUC = 0.805
True Positive Rate
False Positive Rate
0.0
0.2
0.4
0.6
0.8
1.0


Combined ROC Curve
True Positive Rate
False Positive Rate
0.0
0.2
0.4
0.6
0.8
1.0
Logistic Regression Model, AUC = 0.793
SVC Model, AUC = 0.735
Random Forest Model, AUC = 0.797
Decision Tree Model, AUC = 0.799
KNN Model, AUC = 0.773
Gaussian NB Model, AUC = 0.784
MLP Model, AUC = 0.628
Perceptron Model, AUC = 0.805