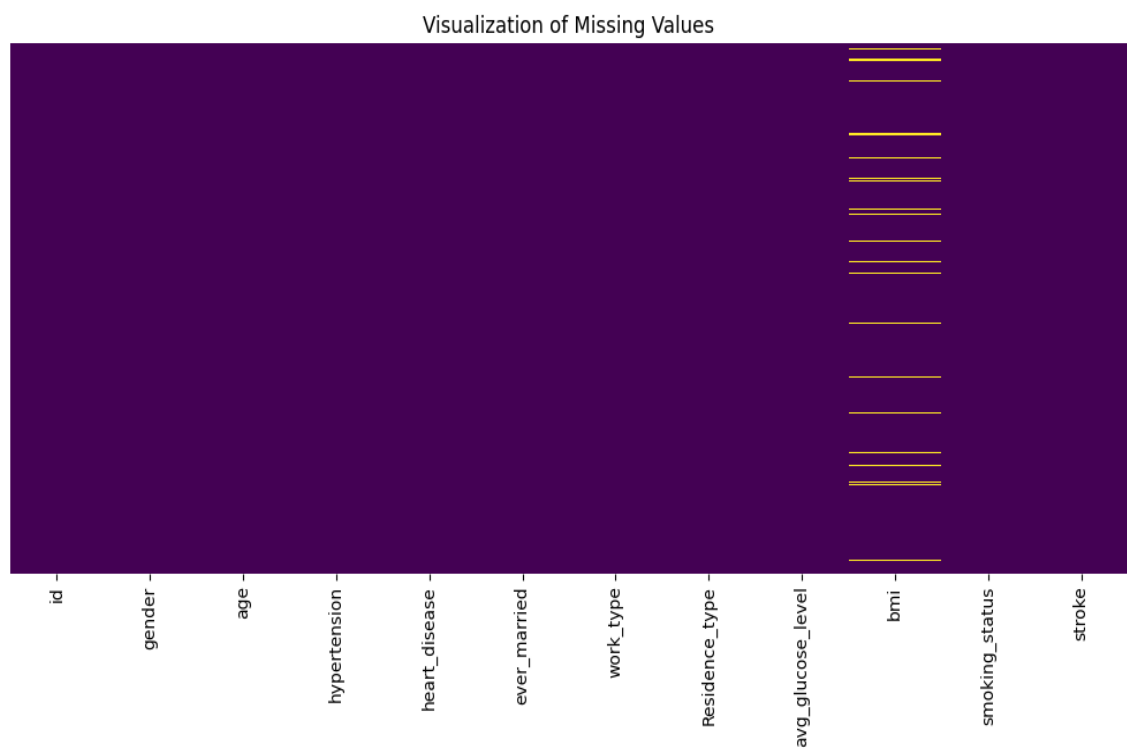


Stroke Prediction Model Analysis Report

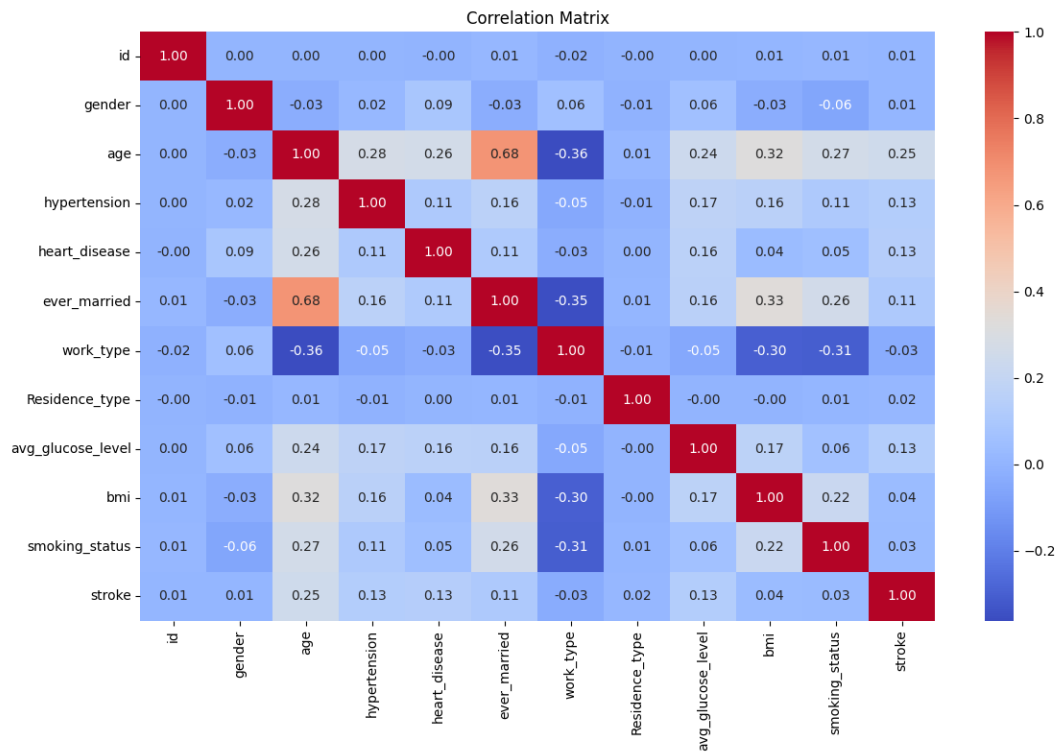
Dataset Information

Dataset size: (5110, 12)

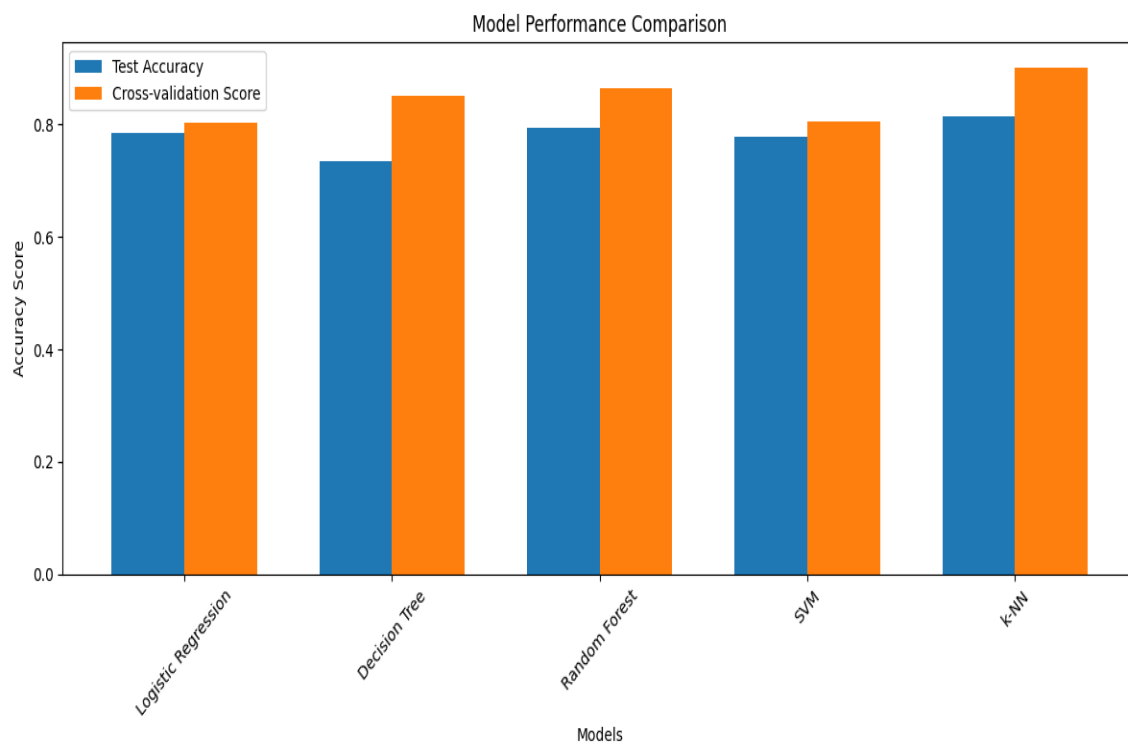
Missing Values Analysis



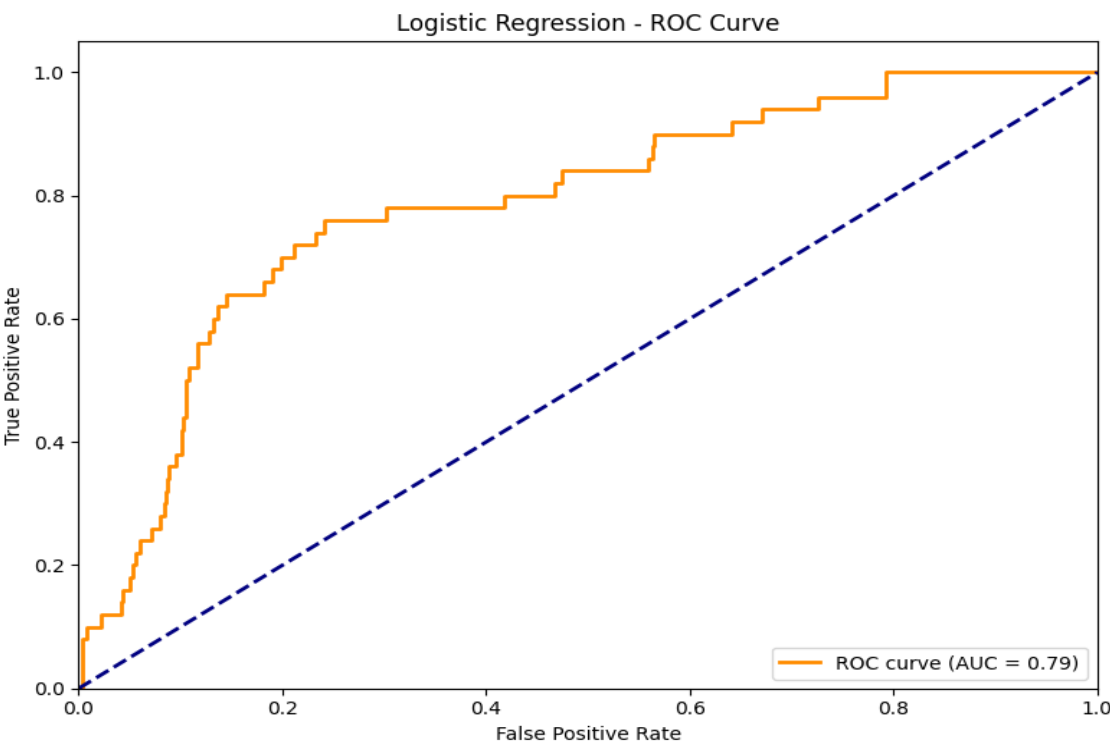
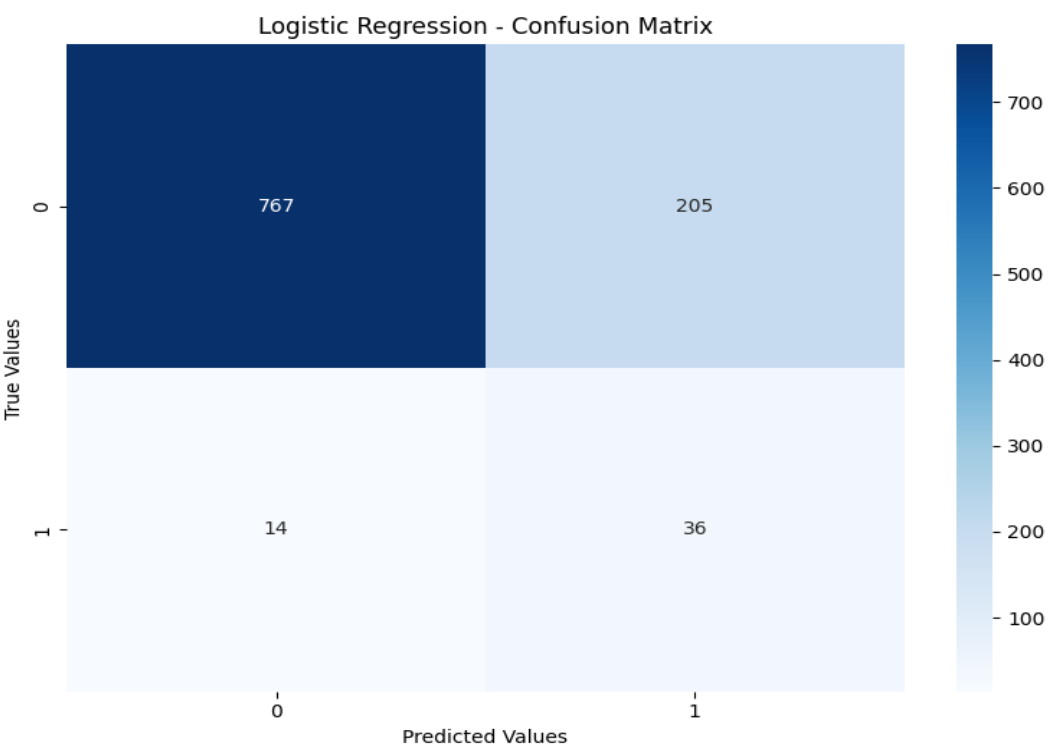
Correlation Matrix



Model Performance Comparison

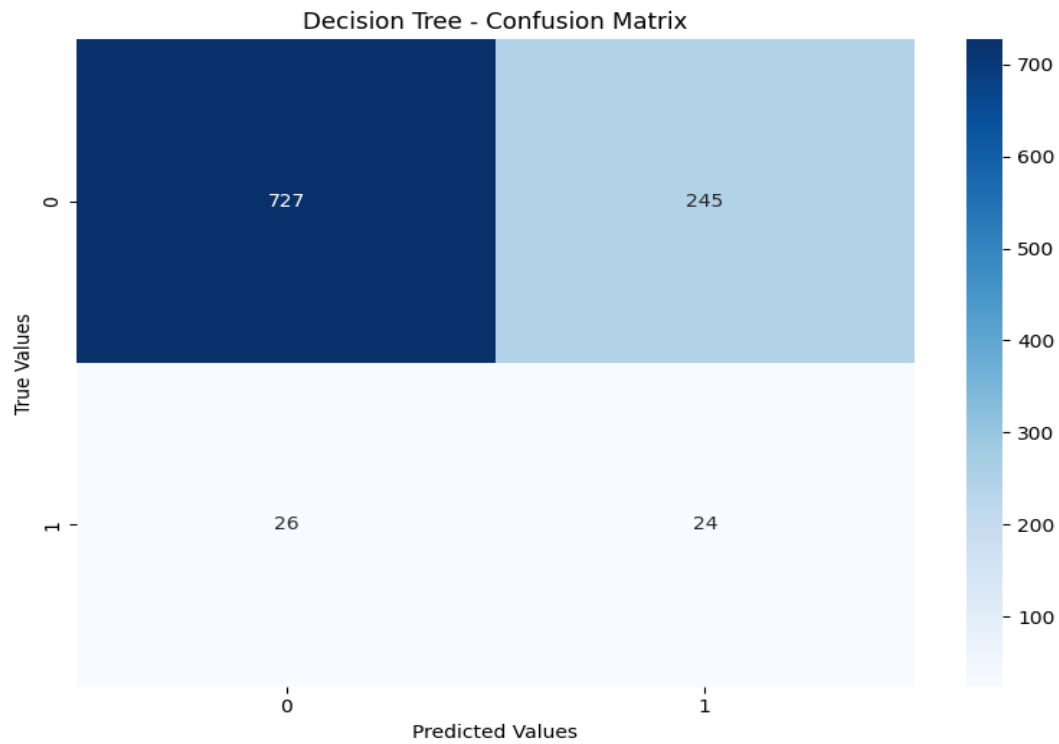


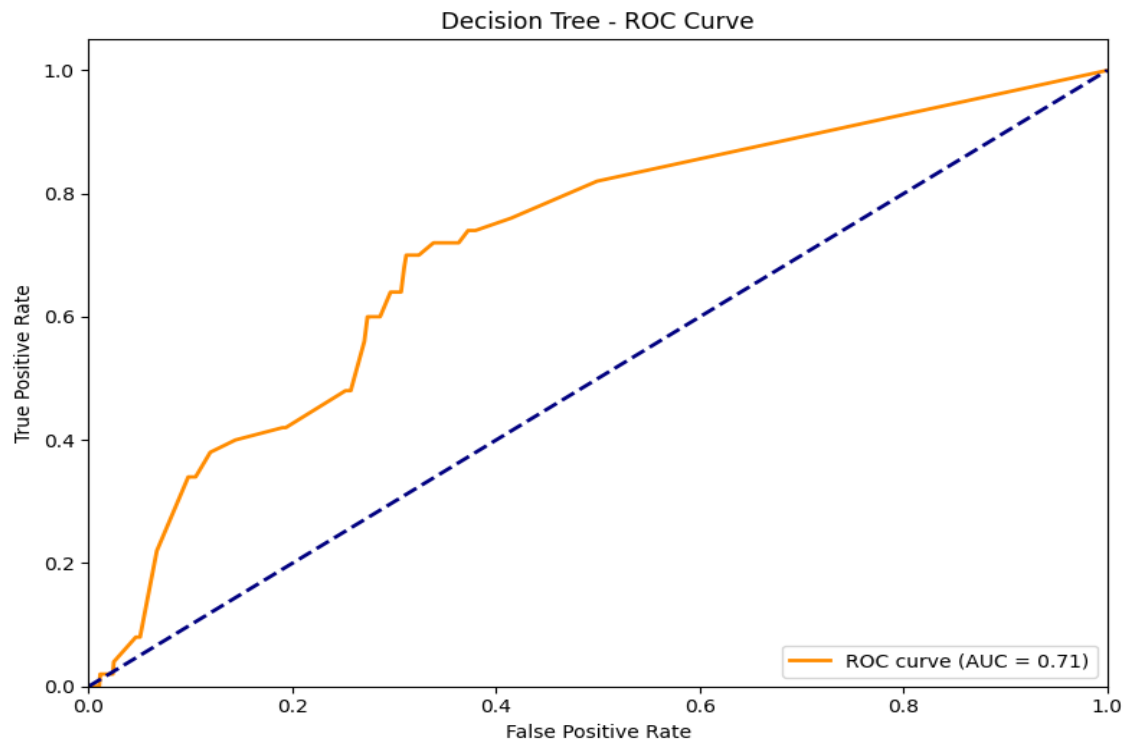
Logistic Regression Model Results



Test Accuracy: 0.7857 Cross-validation Score: 0.8029 Best parameters: {'C': 0.1, 'max_iter': 1000}

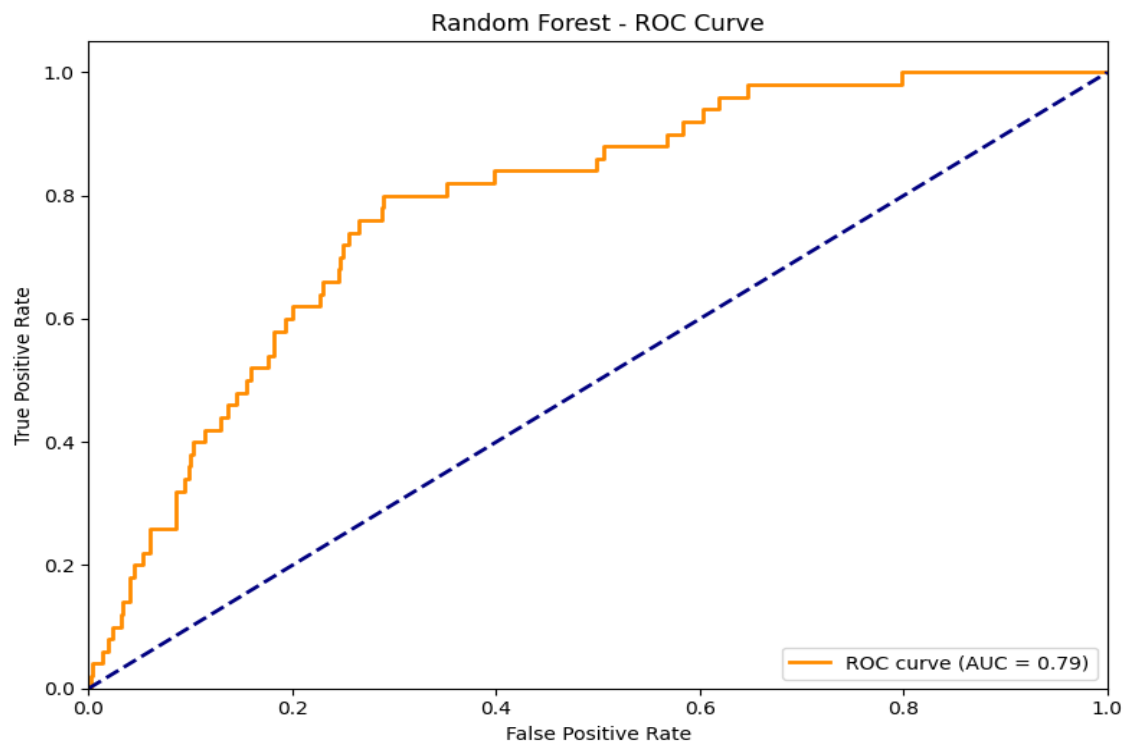
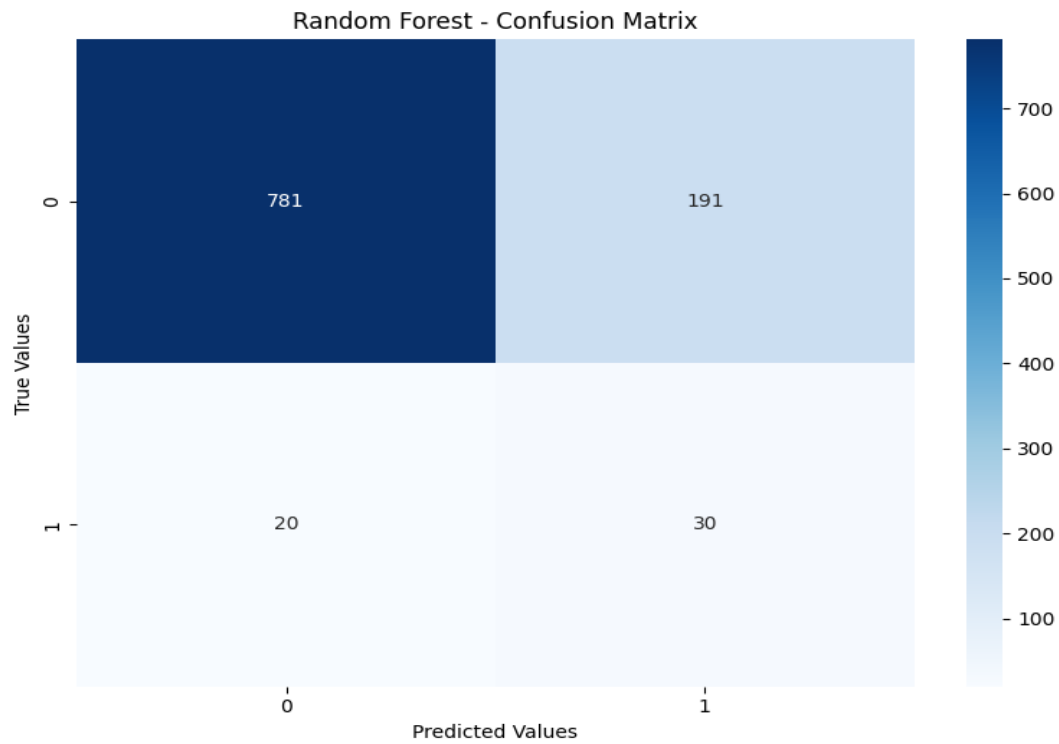
Decision Tree Model Results





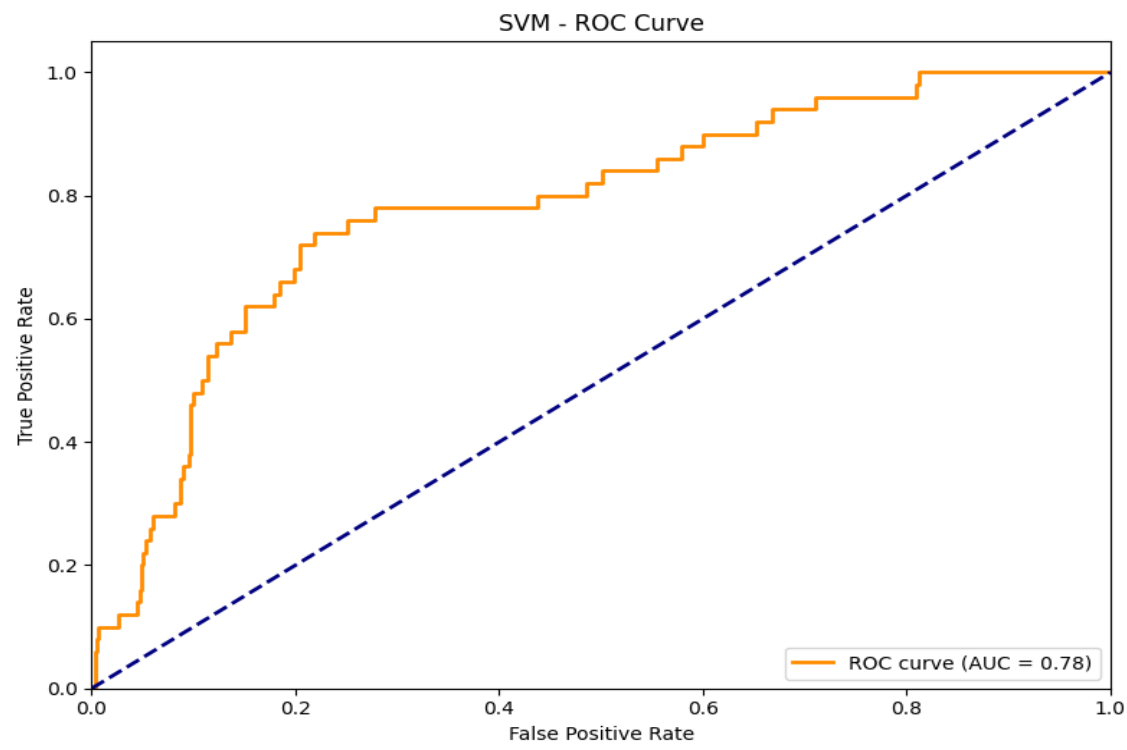
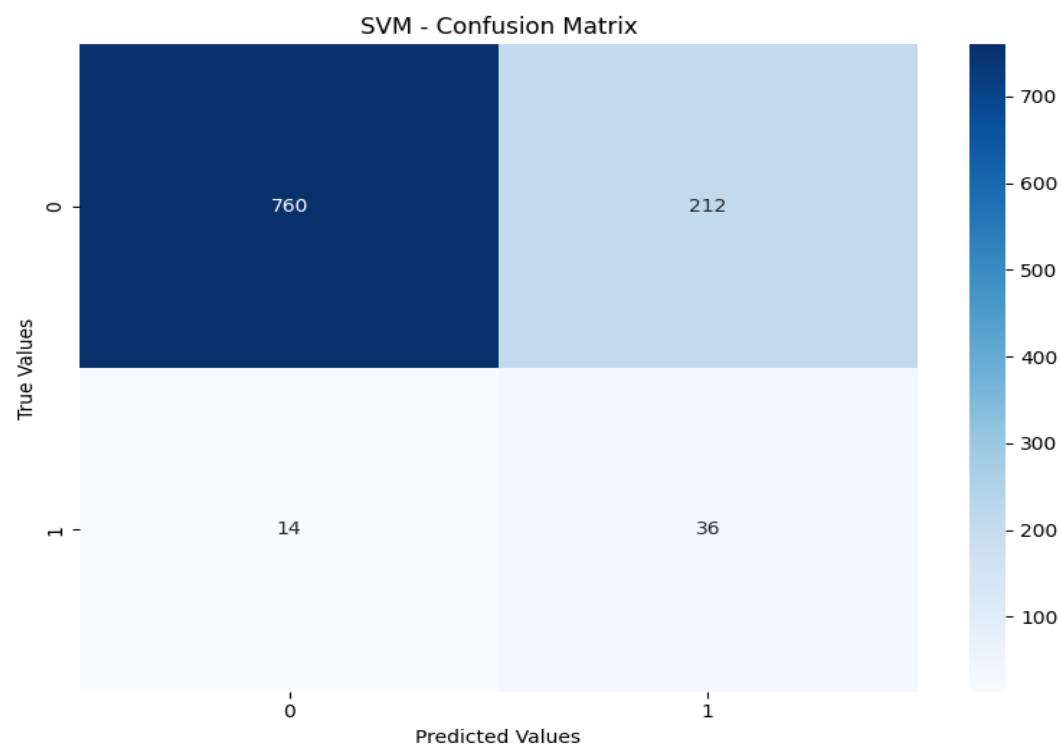
Test Accuracy: 0.7348 Cross-validation Score: 0.8516 Best parameters: {'max_depth': 7, 'min_samples_split': 10}

Random Forest Model Results



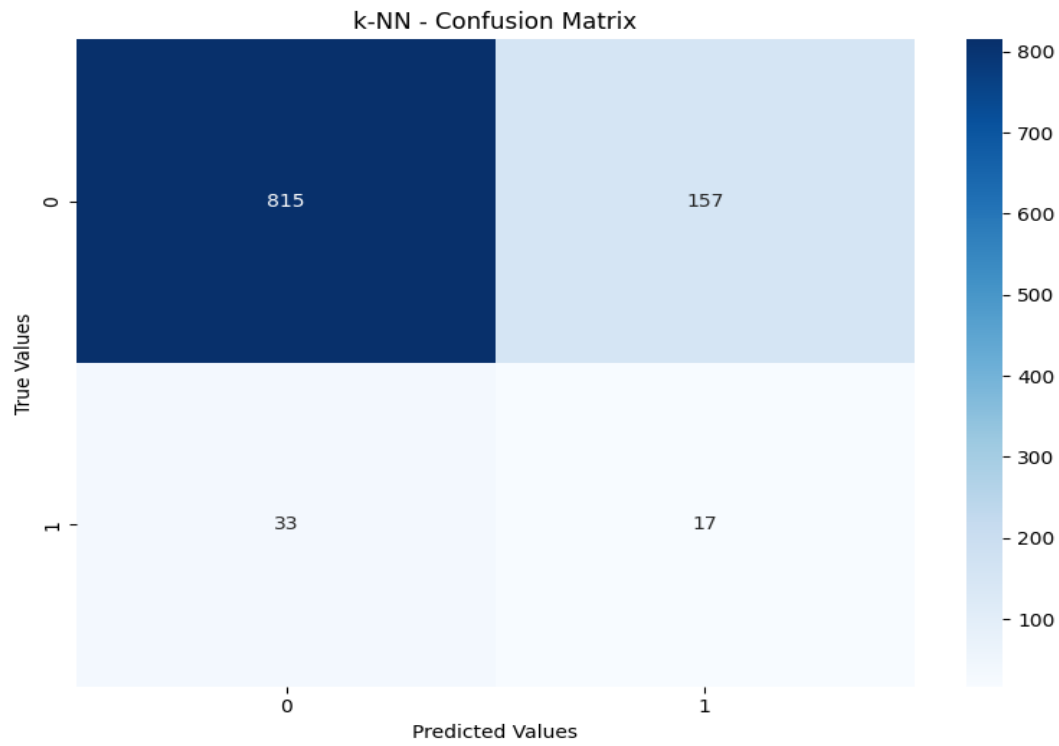
Test Accuracy: 0.7935 Cross-validation Score: 0.8642 Best parameters: {'max_depth': 7, 'n_estimators': 200}

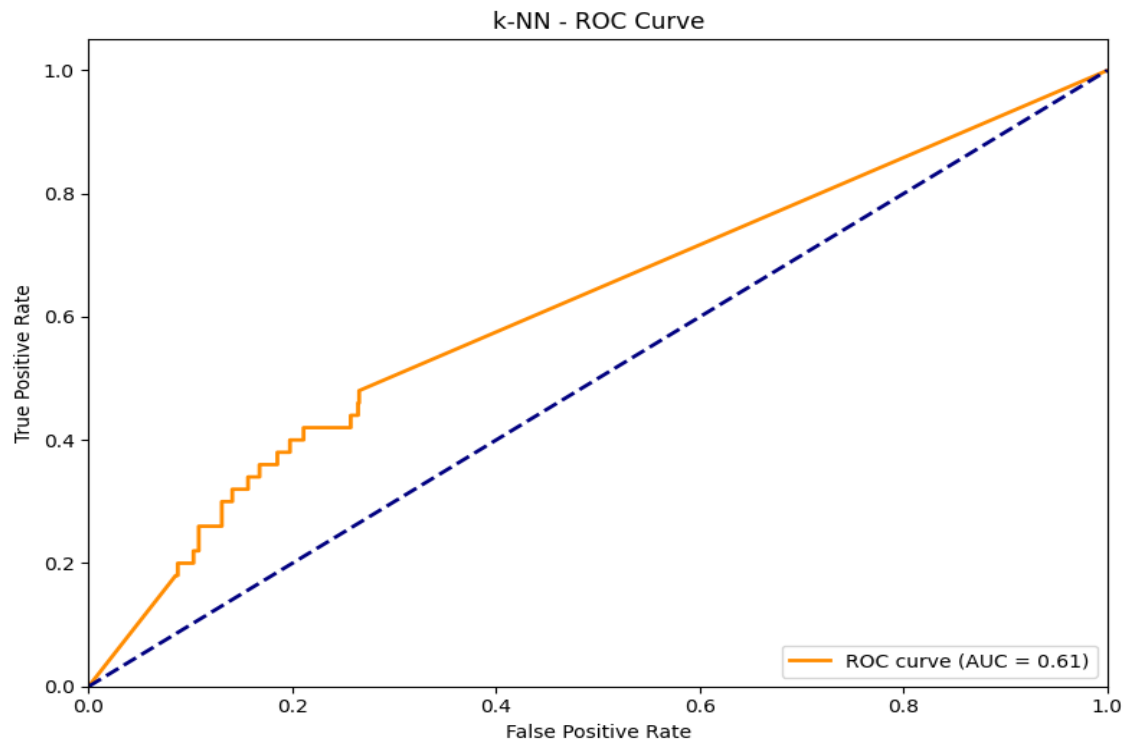
SVM Model Results



Test Accuracy: 0.7789 Cross-validation Score: 0.8055 Best parameters: {'C': 1, 'kernel': 'linear'}

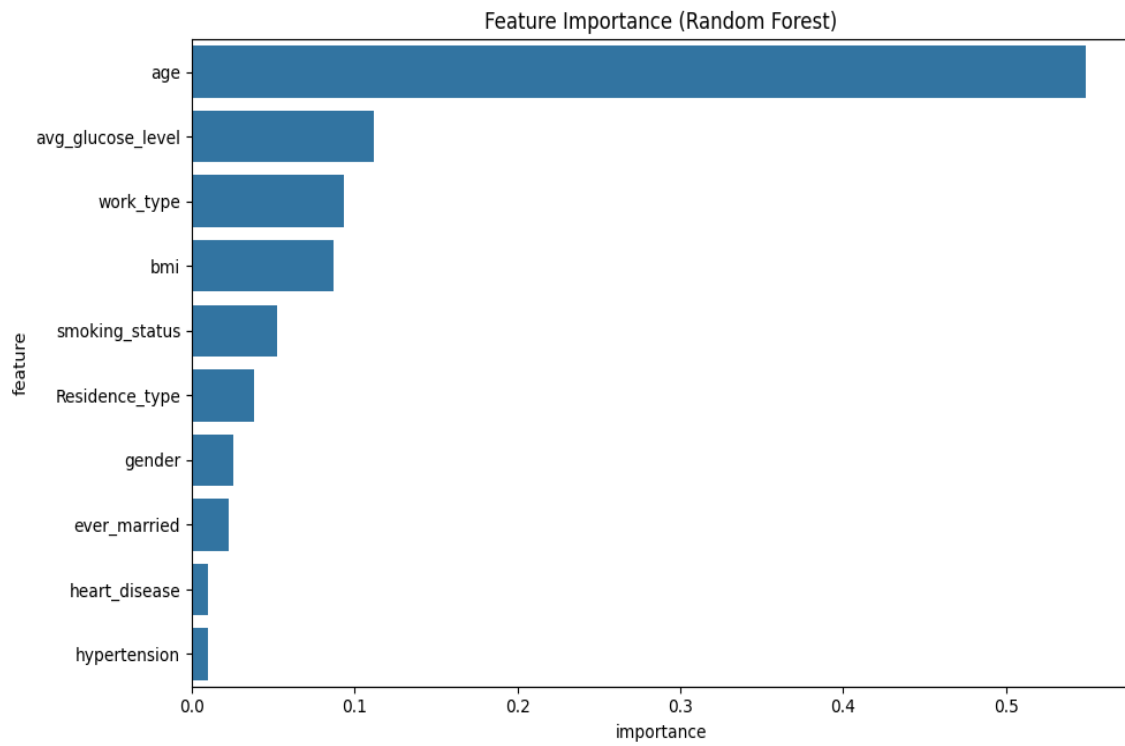
k-NN Model Results





Test Accuracy: 0.8141 Cross-validation Score: 0.9010 Best parameters: {'n_neighbors': 3, 'weights': 'distance'}

Feature Importance (Random Forest)



Best Model

Best performing model: k-NN Accuracy: 0.8141