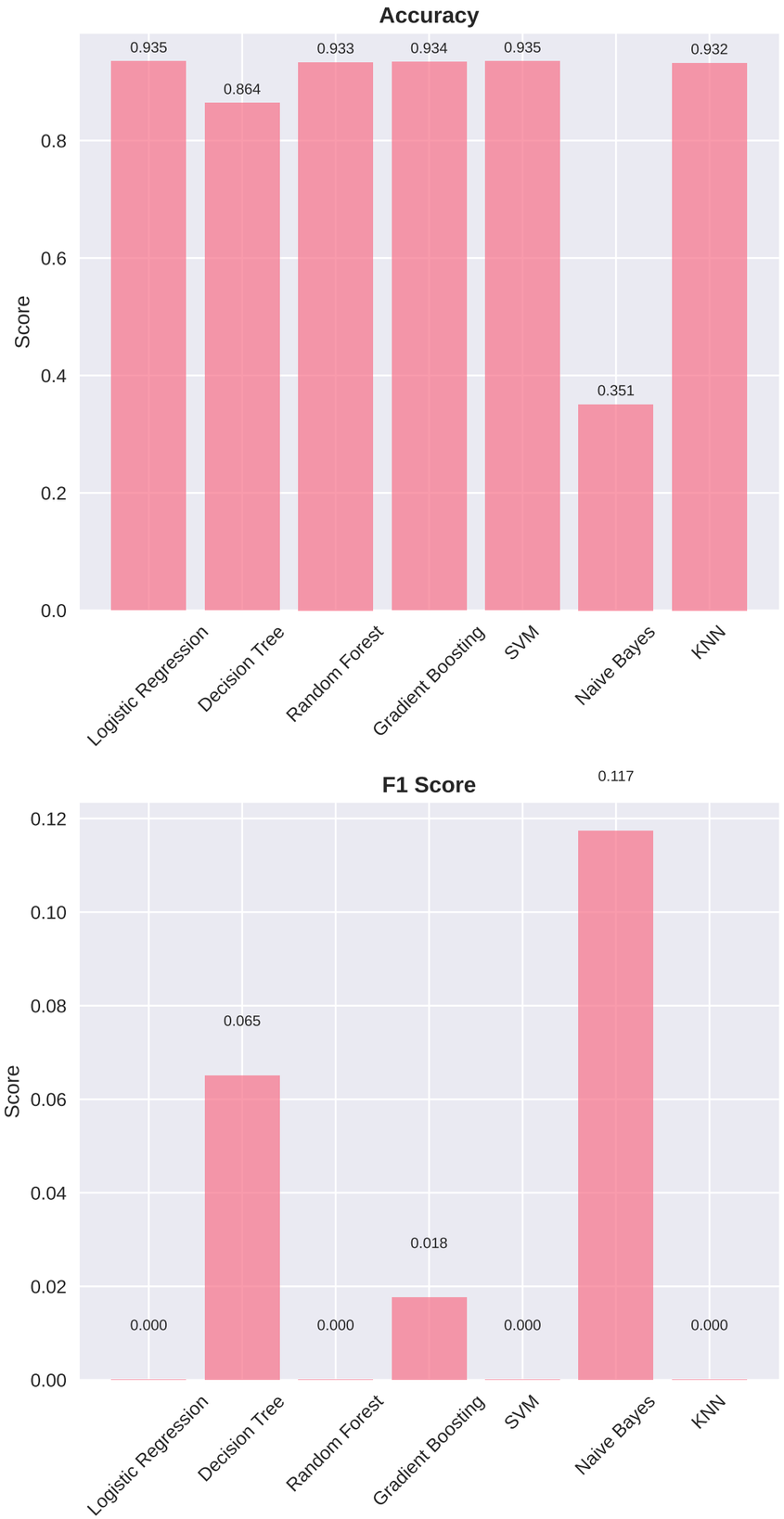
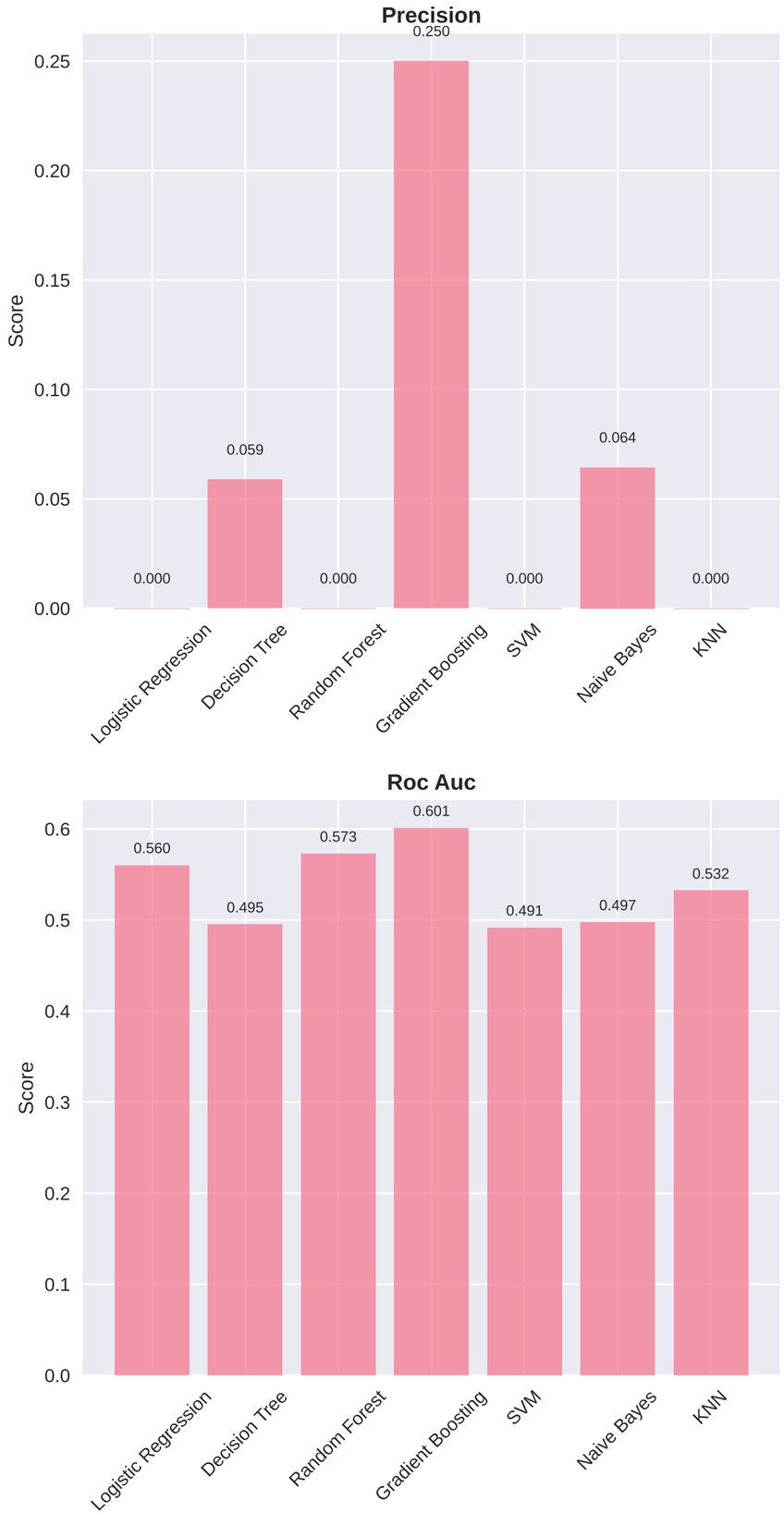
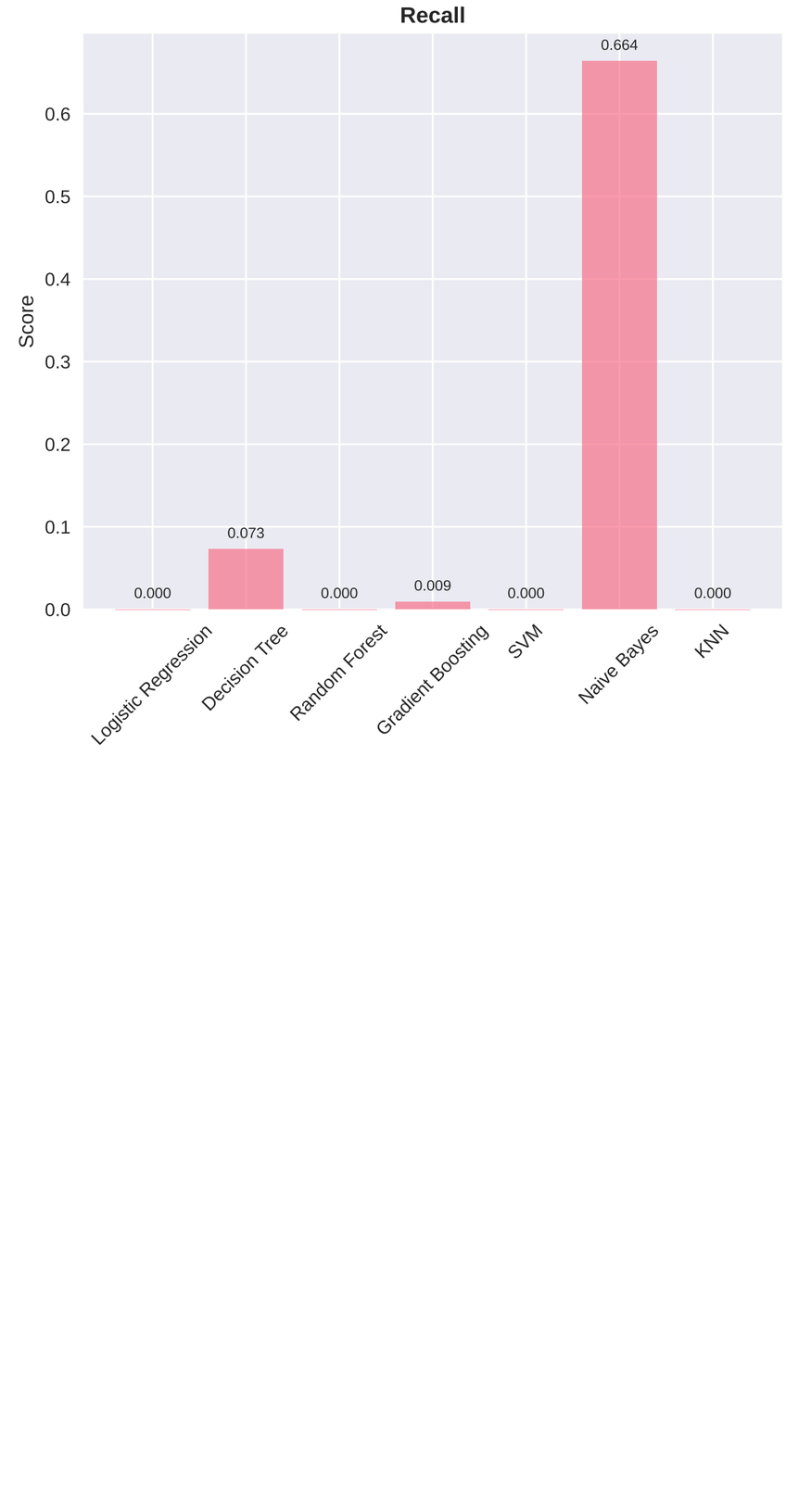
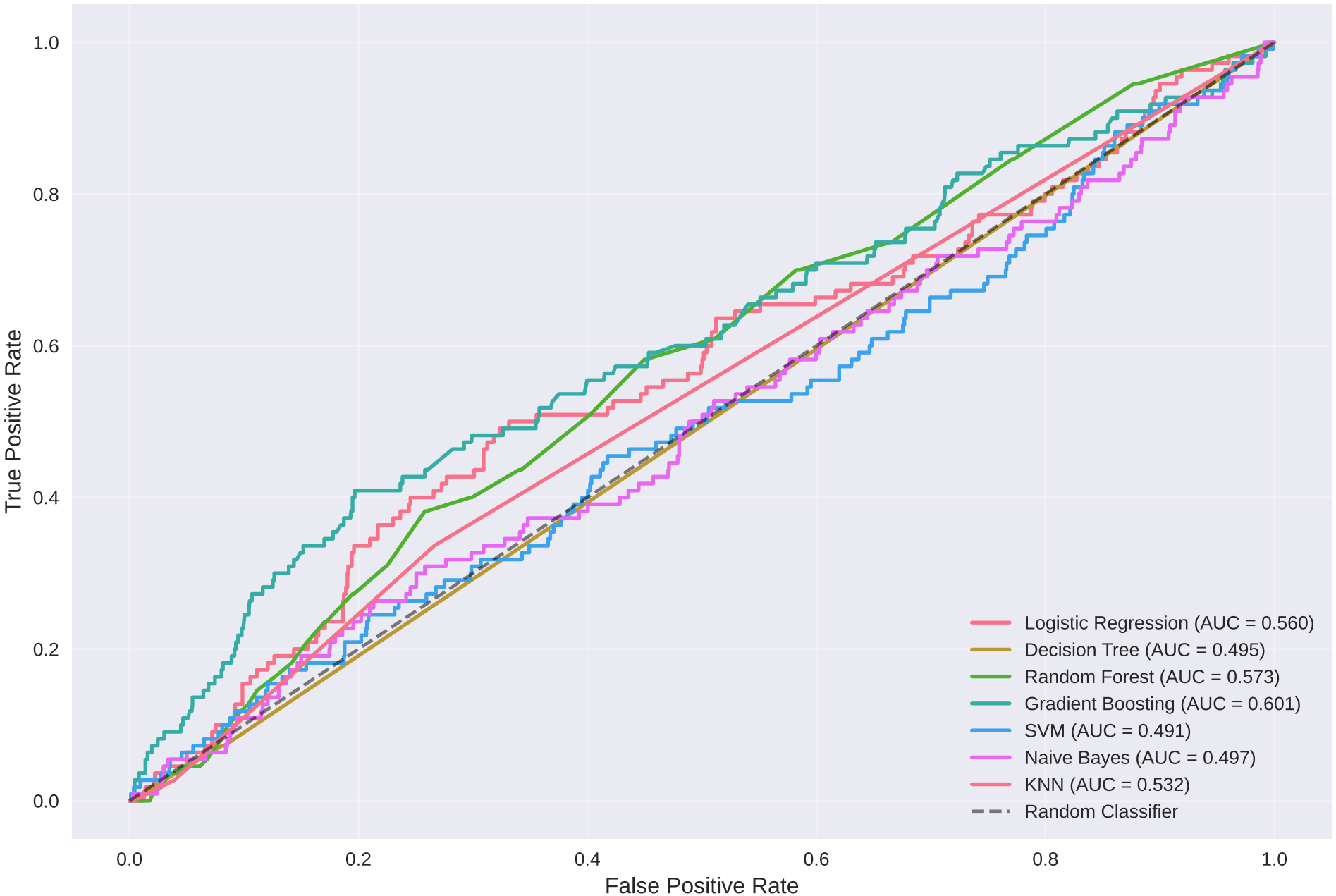
# Model Performance Comparison



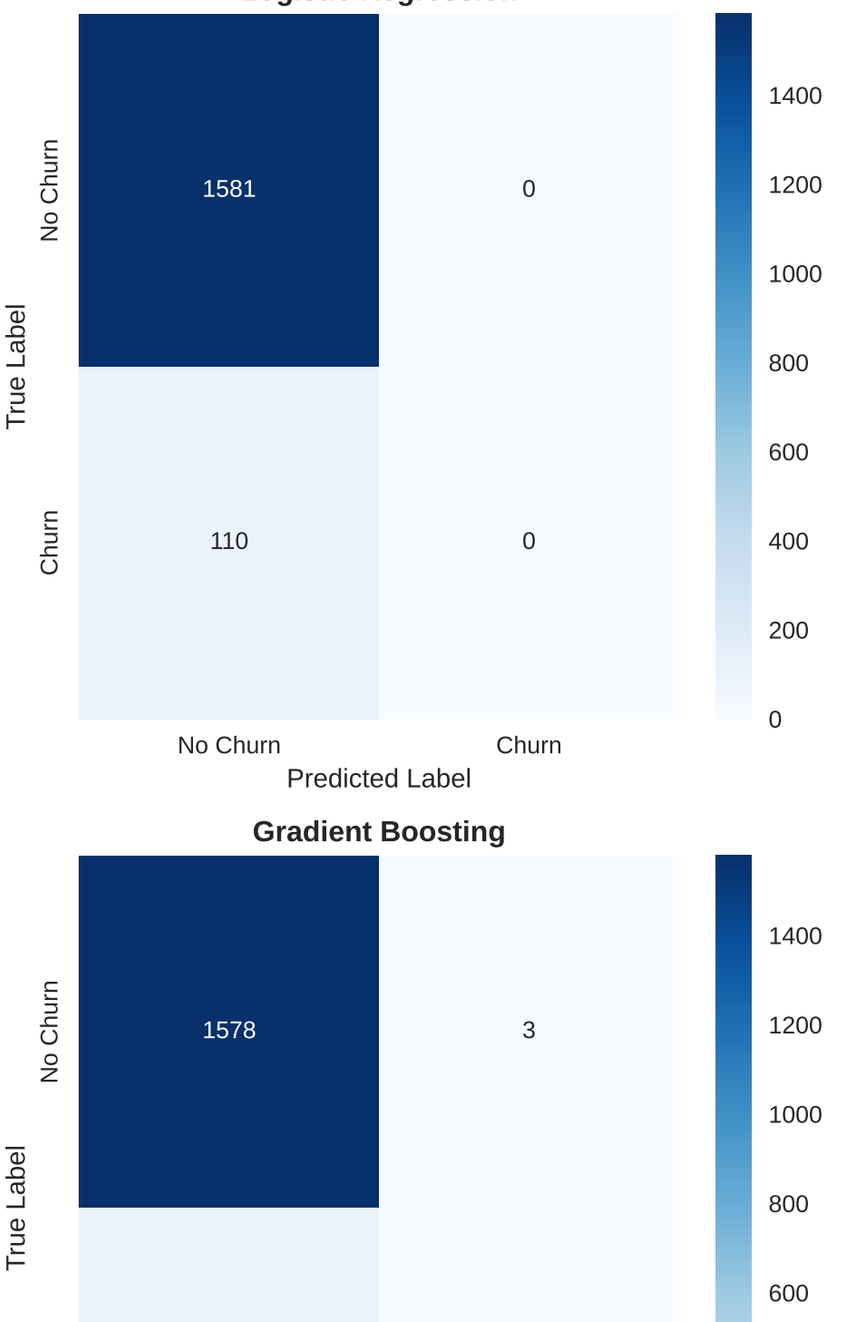



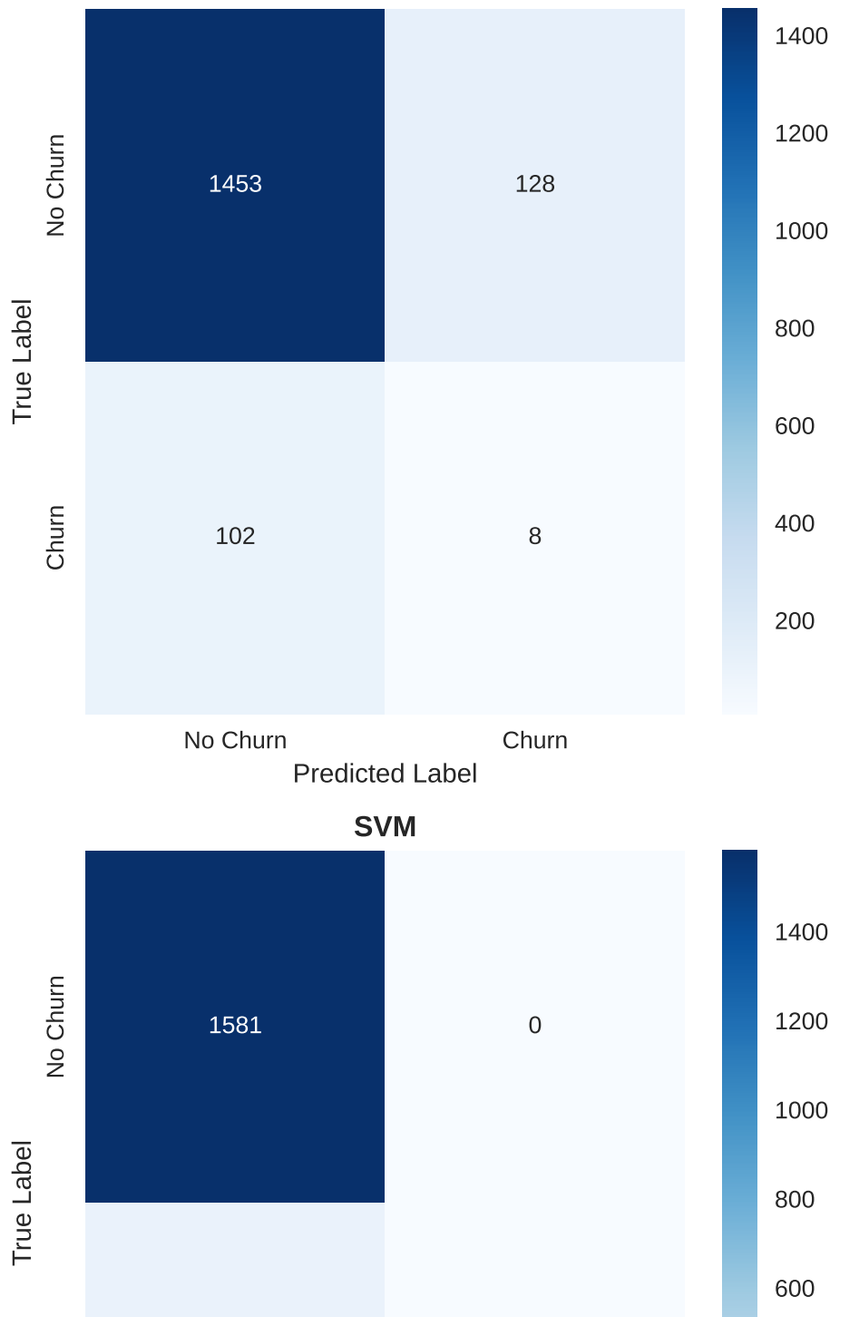

ROC Curves Comparison
True Positive Rate
False Positive Rate
0.0
0.2
0.4
0.6
0.8
1.0
Logistic Regression (AUC = 0.560)
Decision Tree (AUC = 0.495)
Random Forest (AUC = 0.573)
Gradient Boosting (AUC = 0.601)
SVM (AUC = 0.491)
Naive Bayes (AUC = 0.497)
KNN (AUC = 0.532)
Random Classifier

# Confusion Matrices

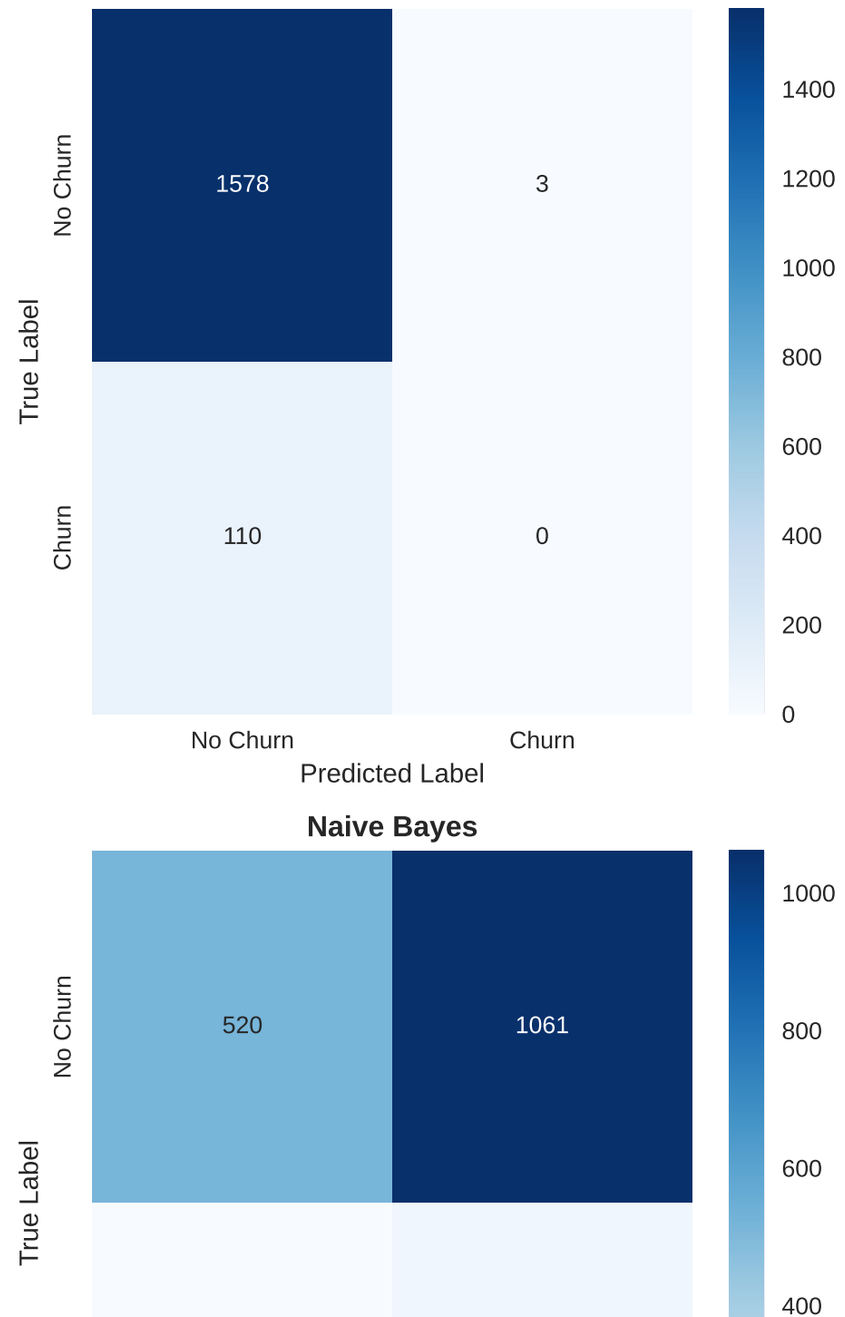
## Logistic Regression



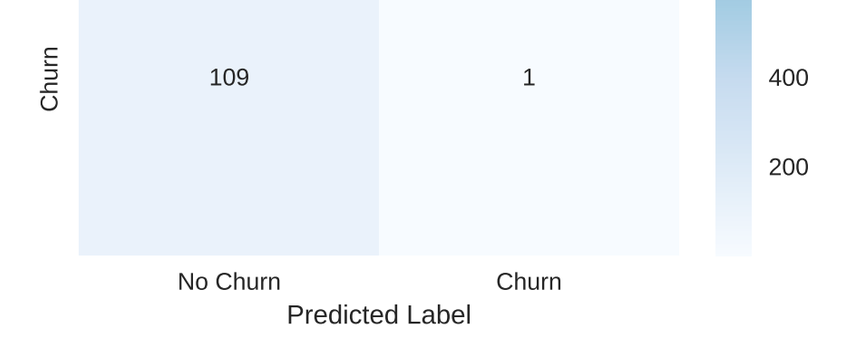

## Decision Tree



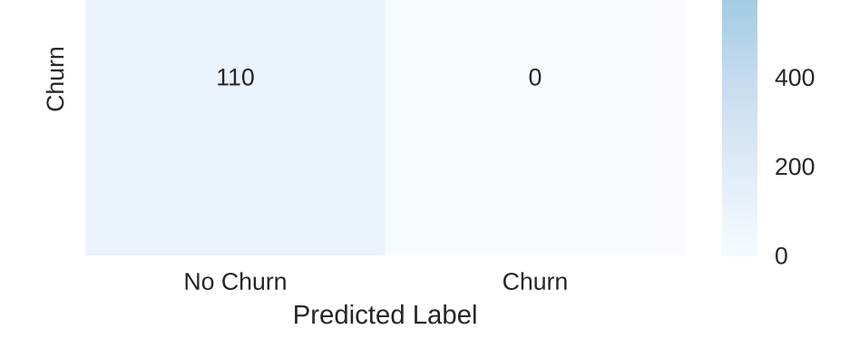

## Random Forest



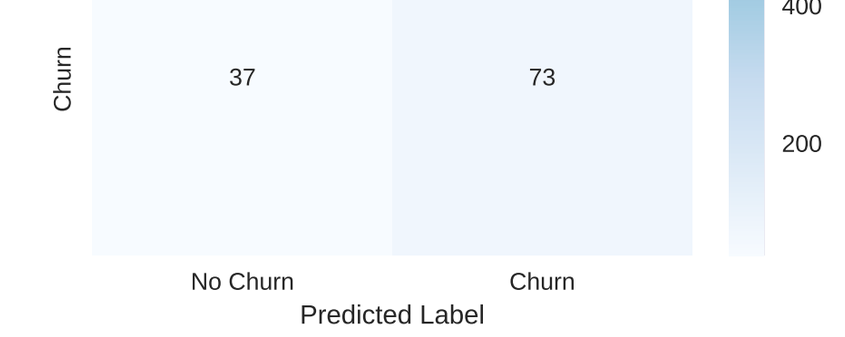

## Gradient Boosting



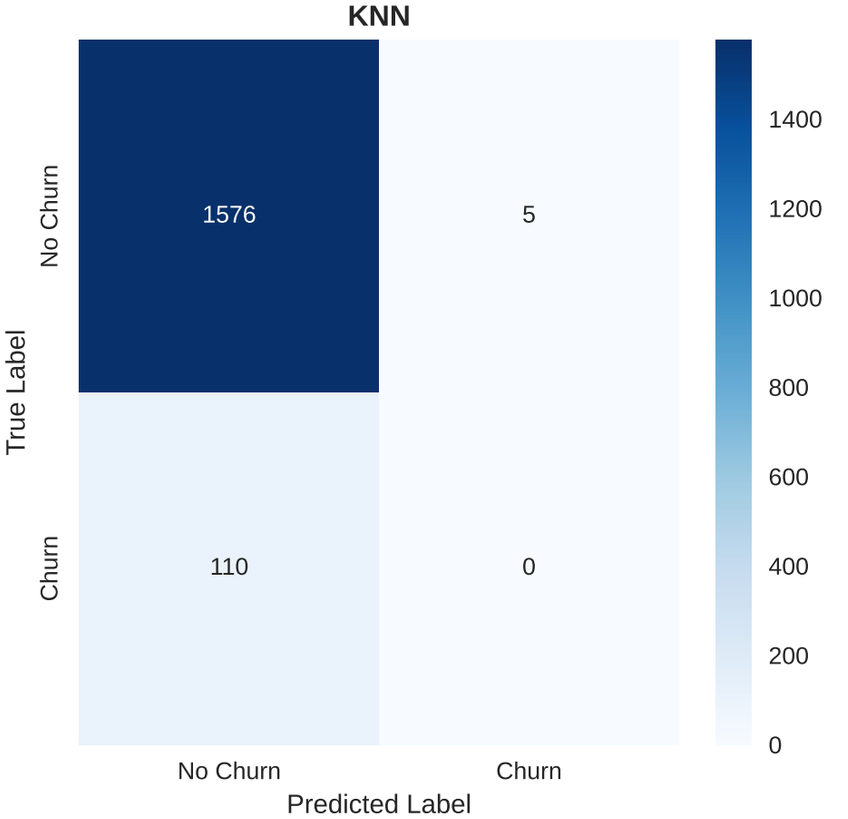

## SVM

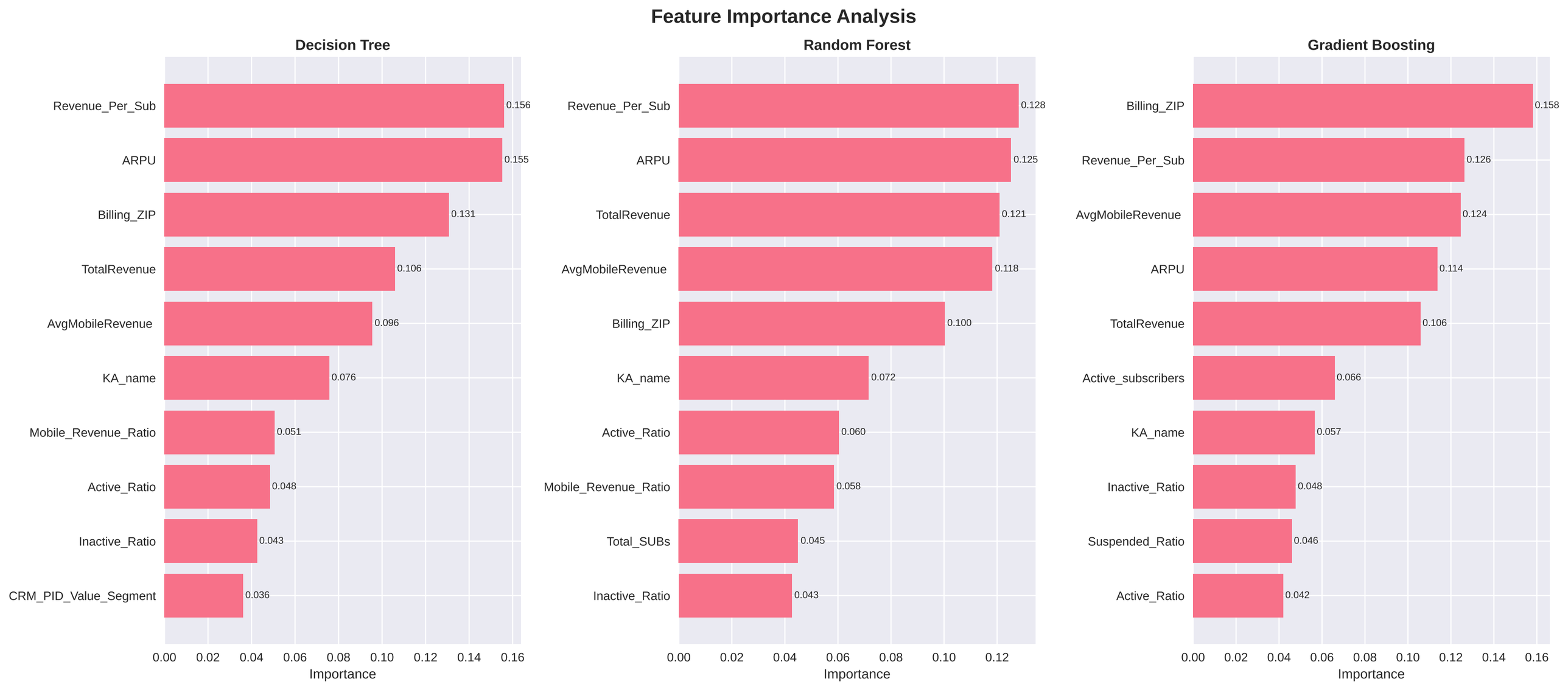



## Naive Bayes




## KNN




Feature Importance Analysis
Decision Tree
Revenue_Per_Sub
ARPU
Billing_ZIP
TotalRevenue
AvgMobileRevenue
KA_name
Mobile_Revenue_Ratio
Active_Ratio
Inactive_Ratio
CRM_PID_Value_Segment
0.156
0.155
0.131
0.106
0.096
0.076
0.051
0.048
0.043
0.036
0.00 0.02 0.04 0.06 0.08 0.10 0.12 0.14 0.16
Importance
Random Forest
Revenue_Per_Sub
ARPU
TotalRevenue
AvgMobileRevenue
Billing_ZIP
KA_name
Active_Ratio
Mobile_Revenue_Ratio
Total_SUBs
Inactive_Ratio
0.128
0.125
0.121
0.118
0.100
0.072
0.060
0.058
0.045
0.043
0.00 0.02 0.04 0.06 0.08 0.10 0.12
Importance
Gradient Boosting
Billing_ZIP
Revenue_Per_Sub
AvgMobileRevenue
ARPU
TotalRevenue
Active_subscribers
KA_name
Inactive_Ratio
Suspended_Ratio
Active_Ratio
0.158
0.126
0.124
0.114
0.106
0.066
0.057
0.048
0.046
0.042
0.00 0.02 0.04 0.06 0.08 0.10 0.12 0.14 0.16
Importance