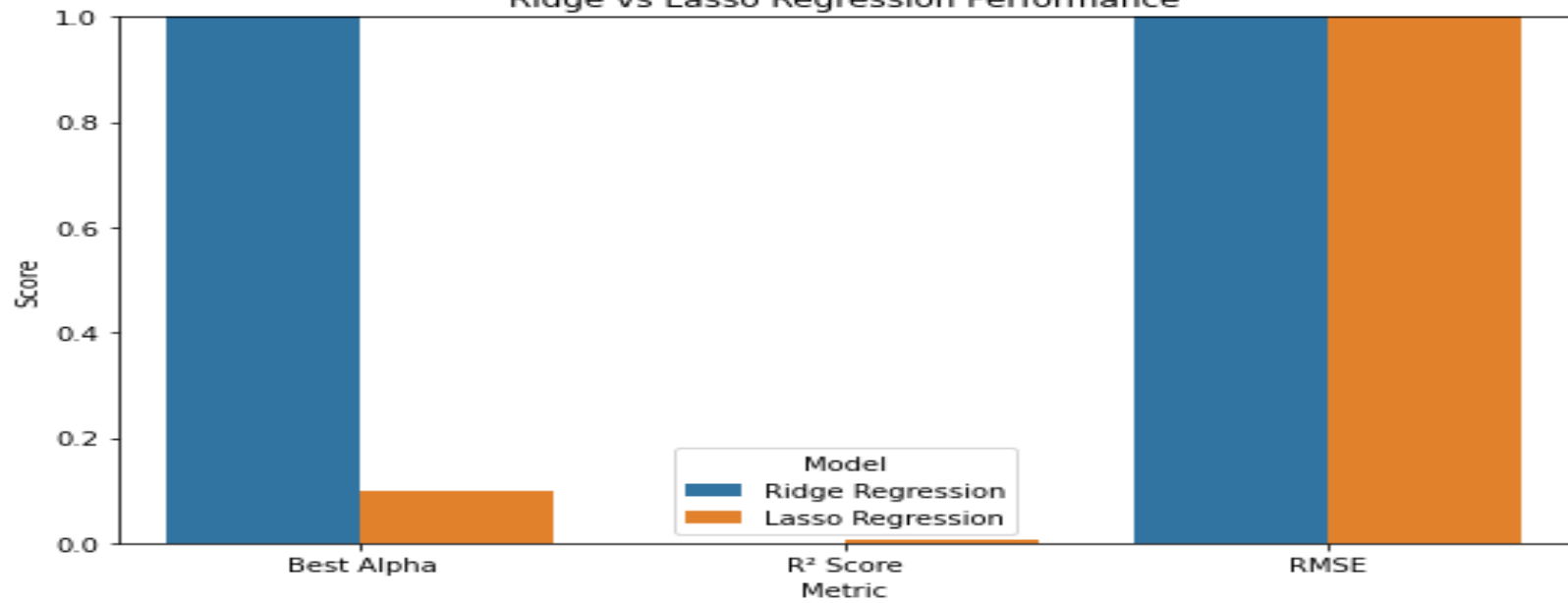
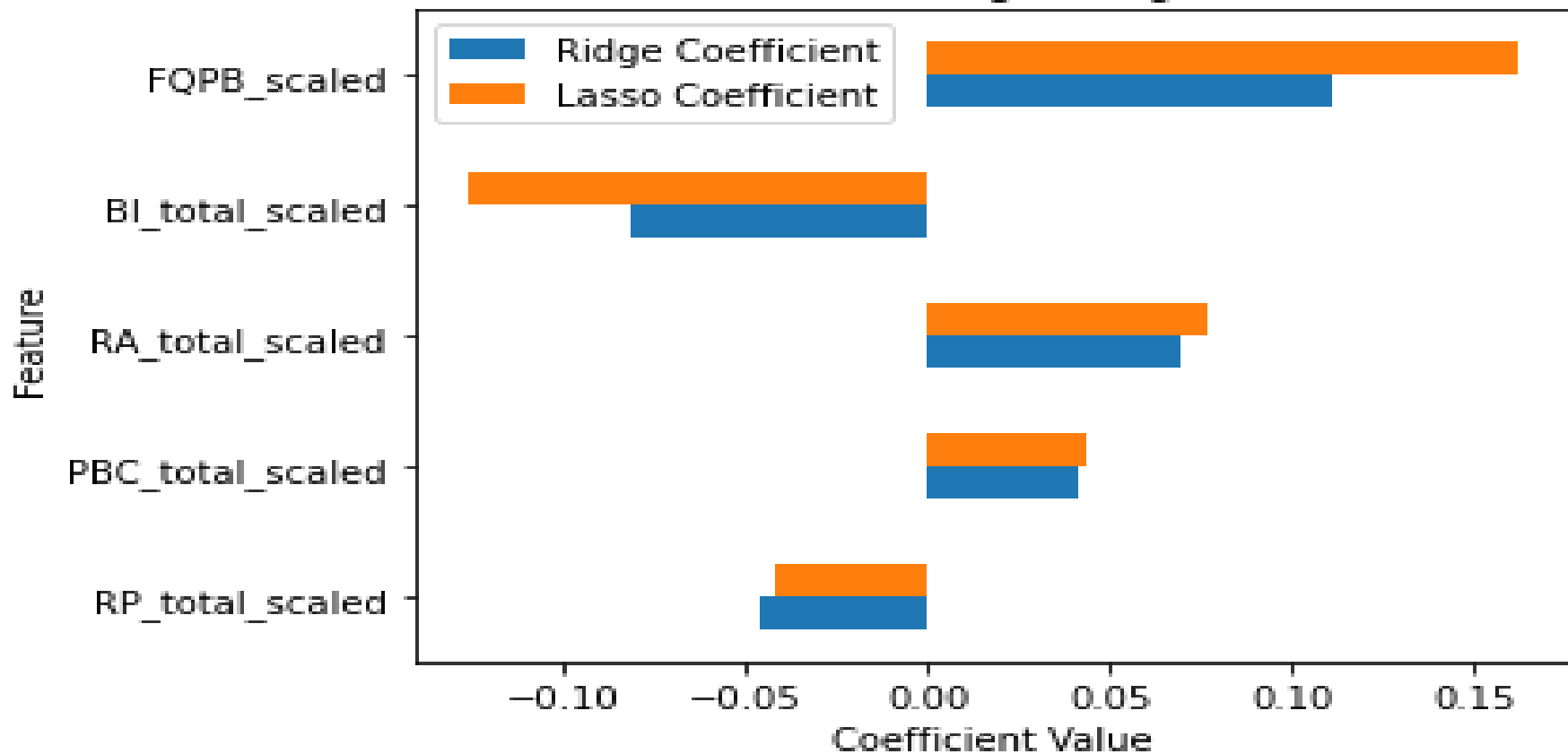


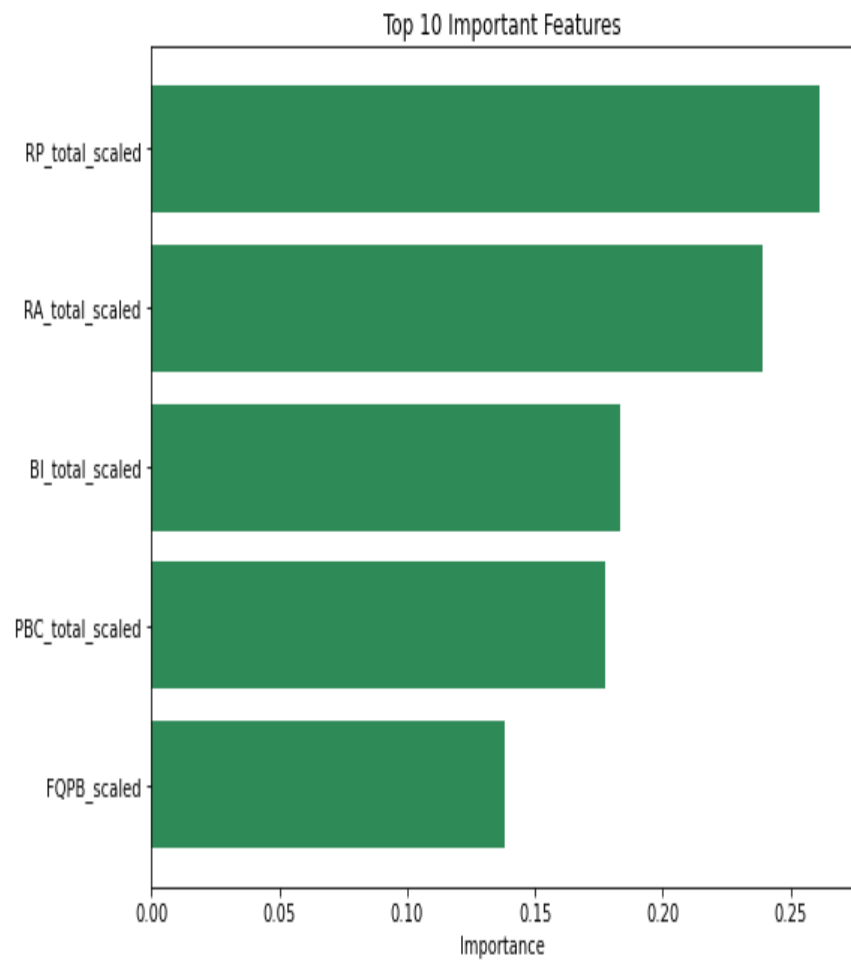
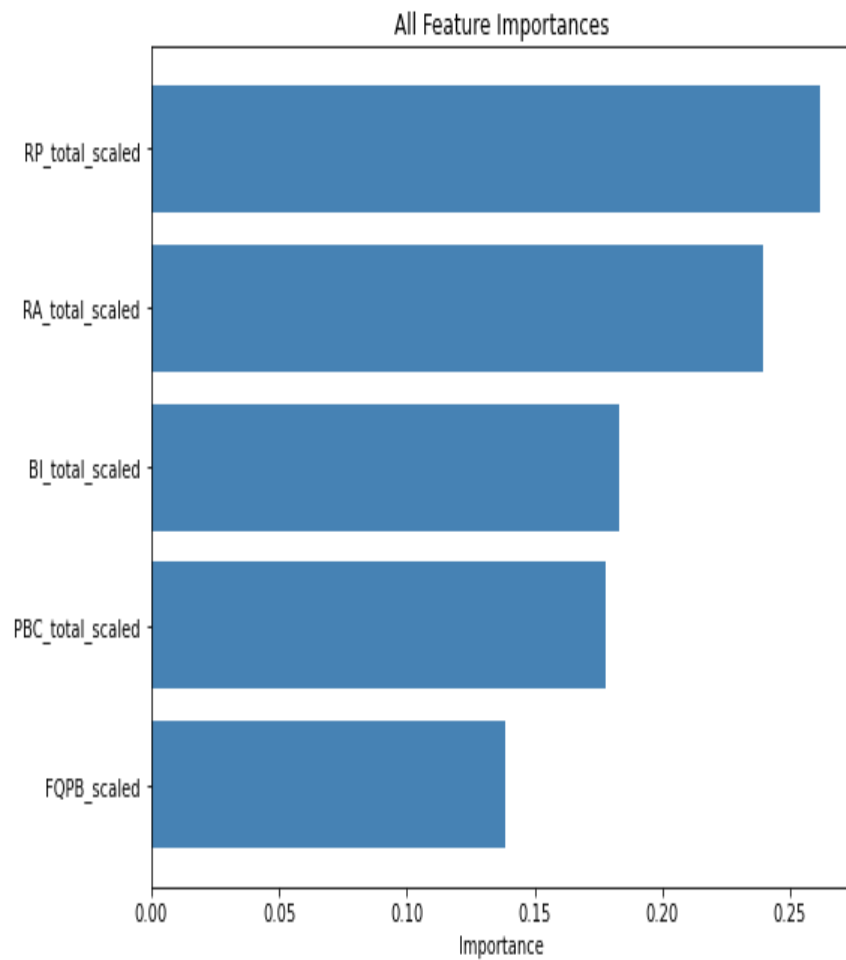
Ridge vs Lasso Regression Performance



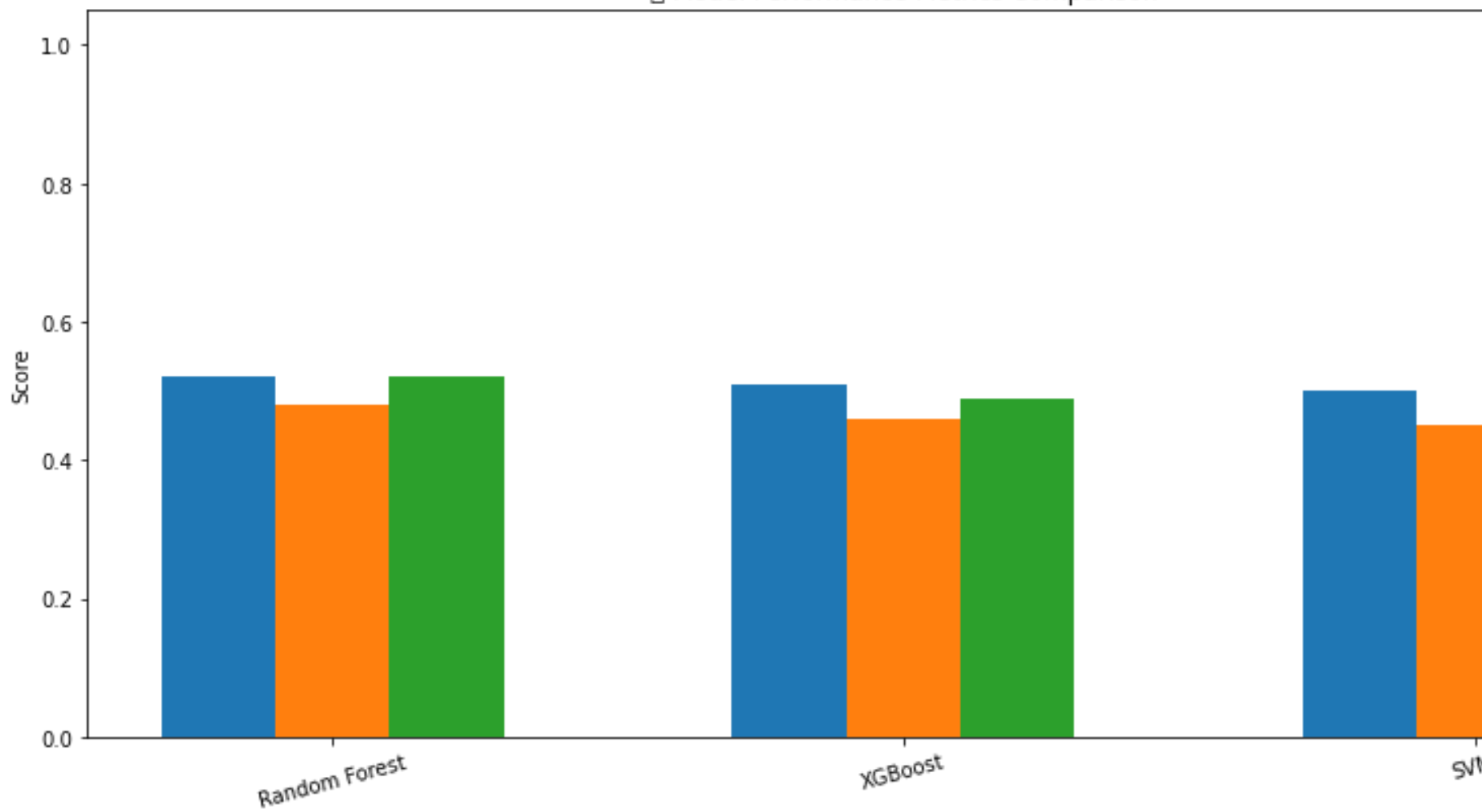
Coefficient Shrinkage: Ridge vs. Lasso



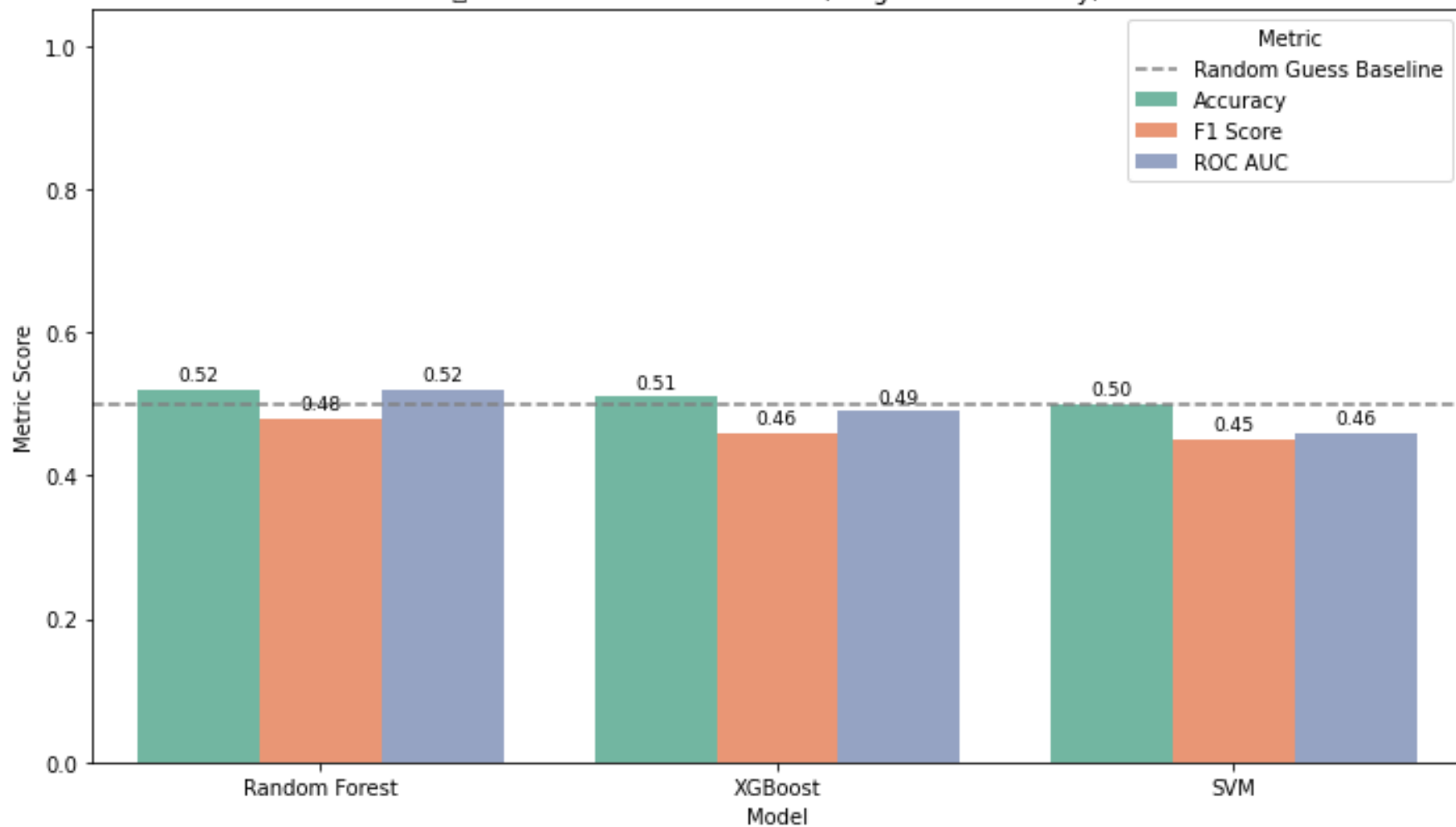
Random Forest Feature Importances (Side by Side)



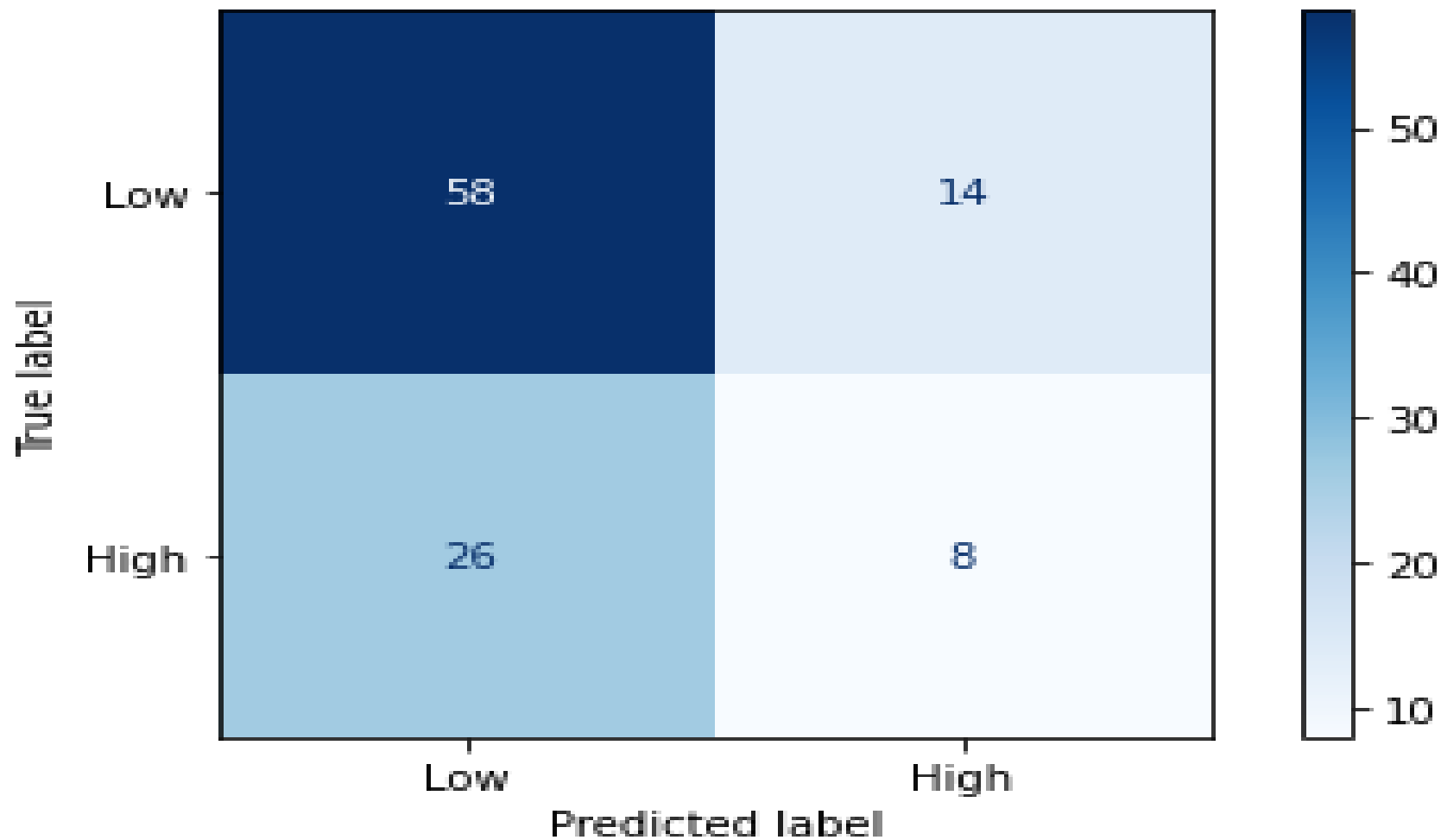
Model Performance Metrics Comparison



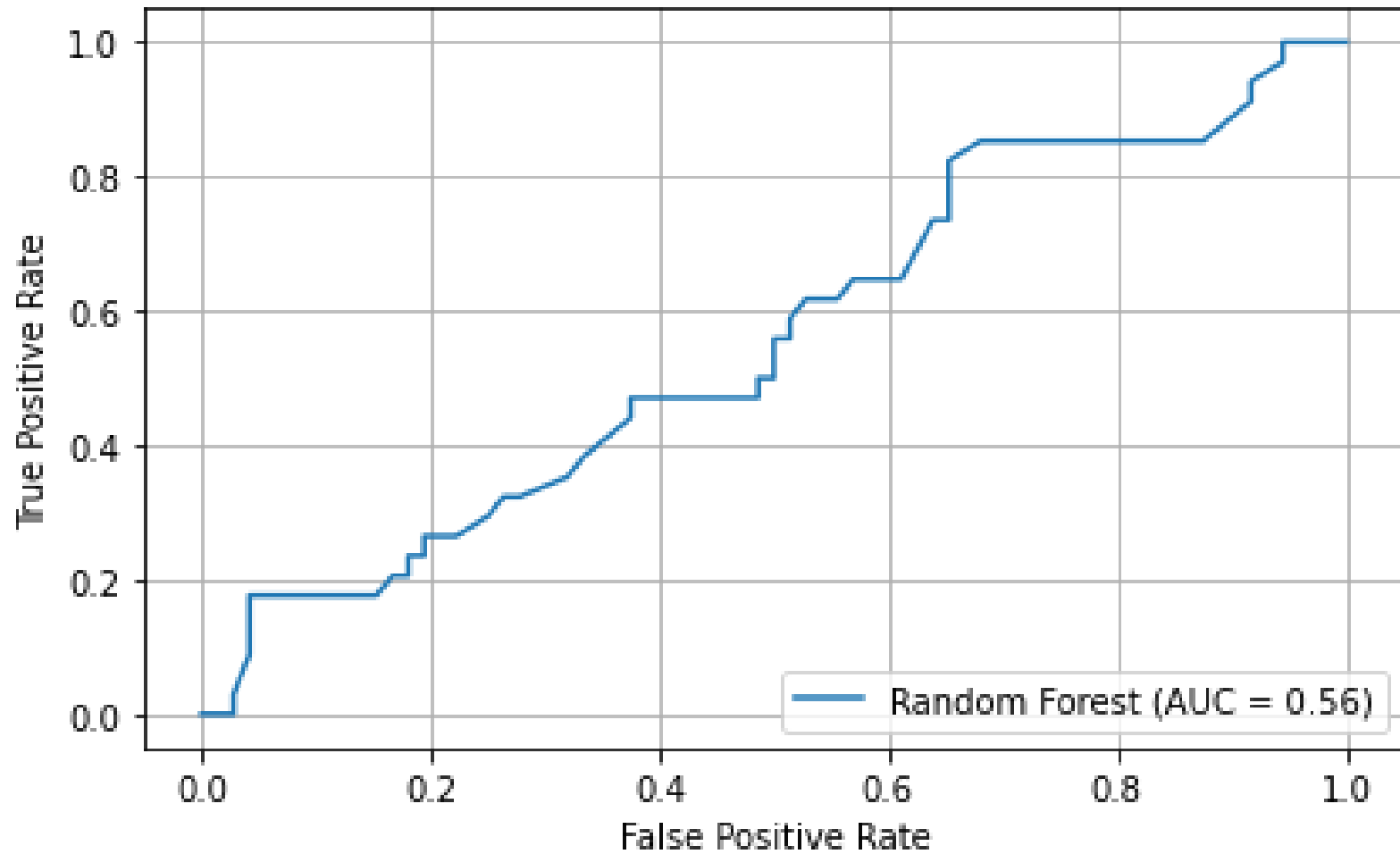
Model Performance Metrics (Diagnostic Summary)



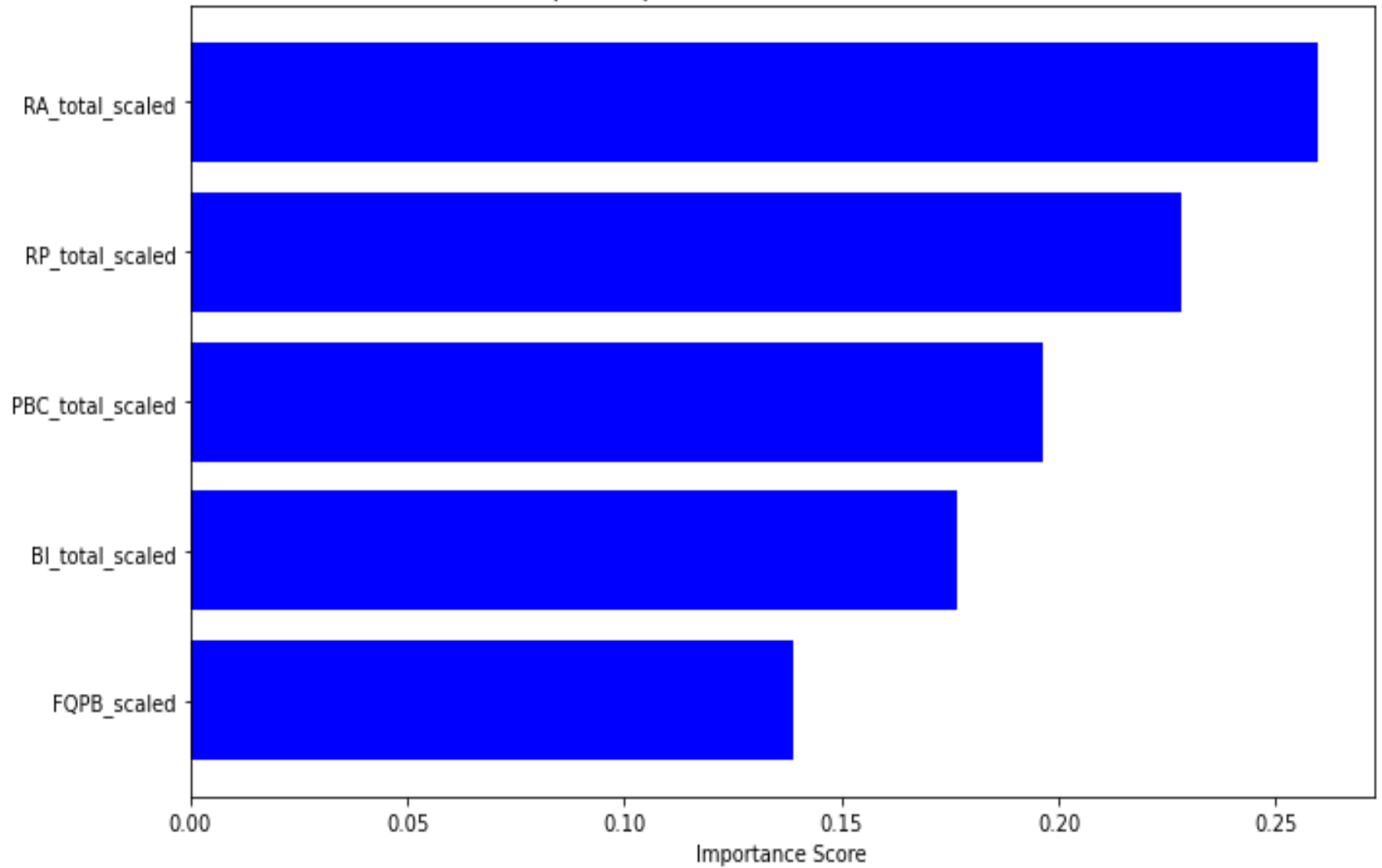
Confusion Matrix - Random Forest



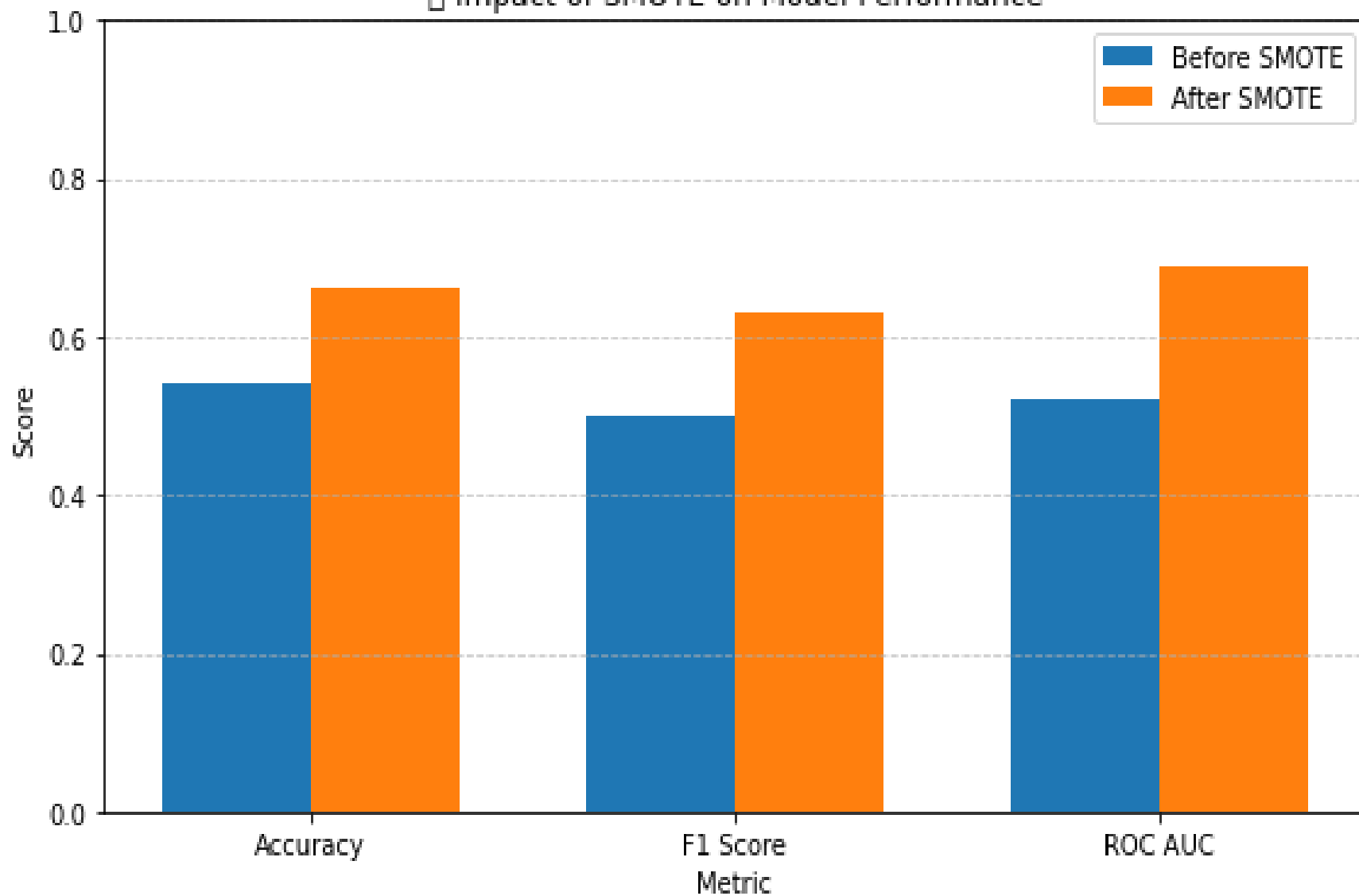
ROC Curve - Random Forest



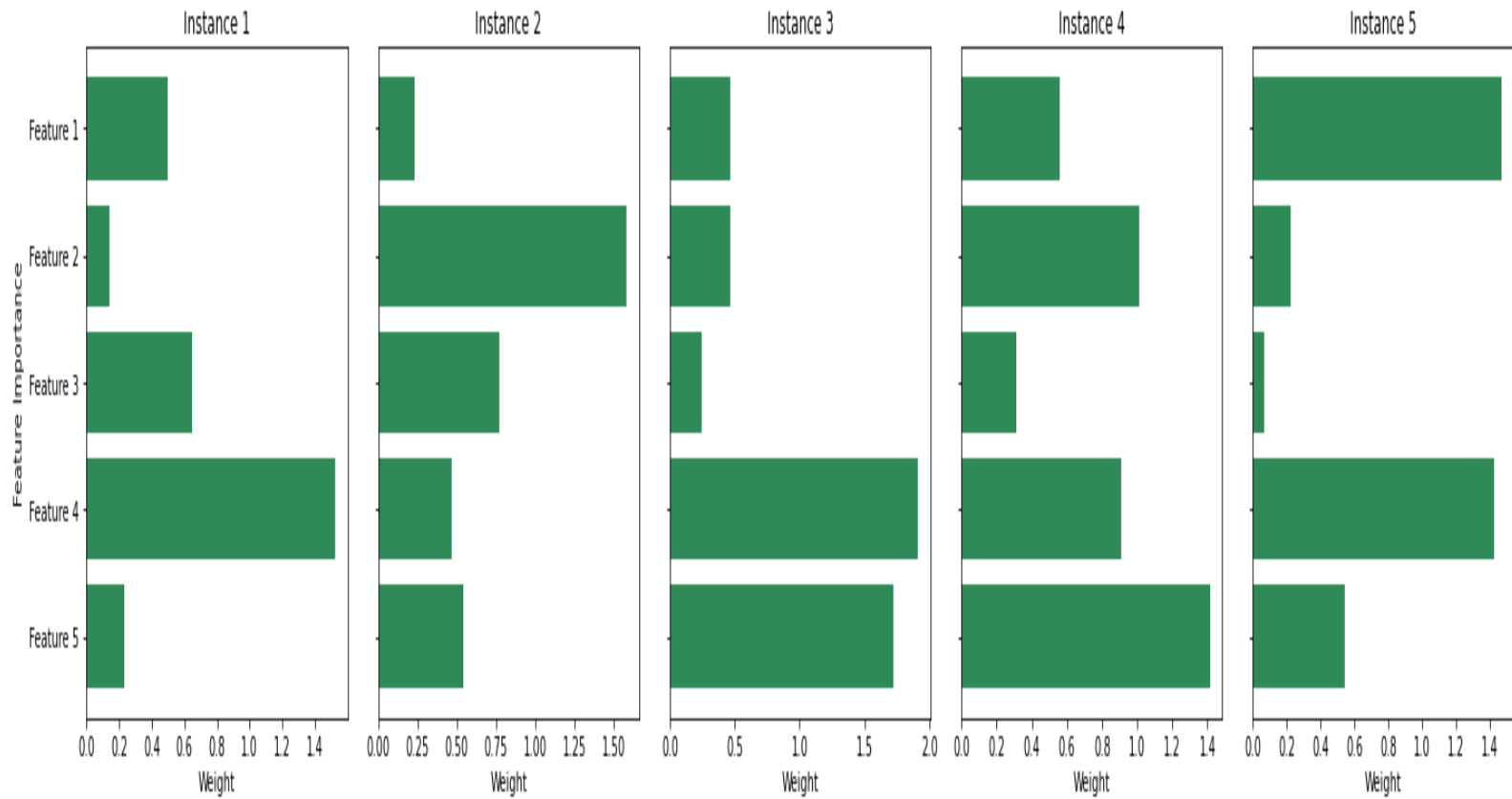
Top 10 Important Features - Random Forest



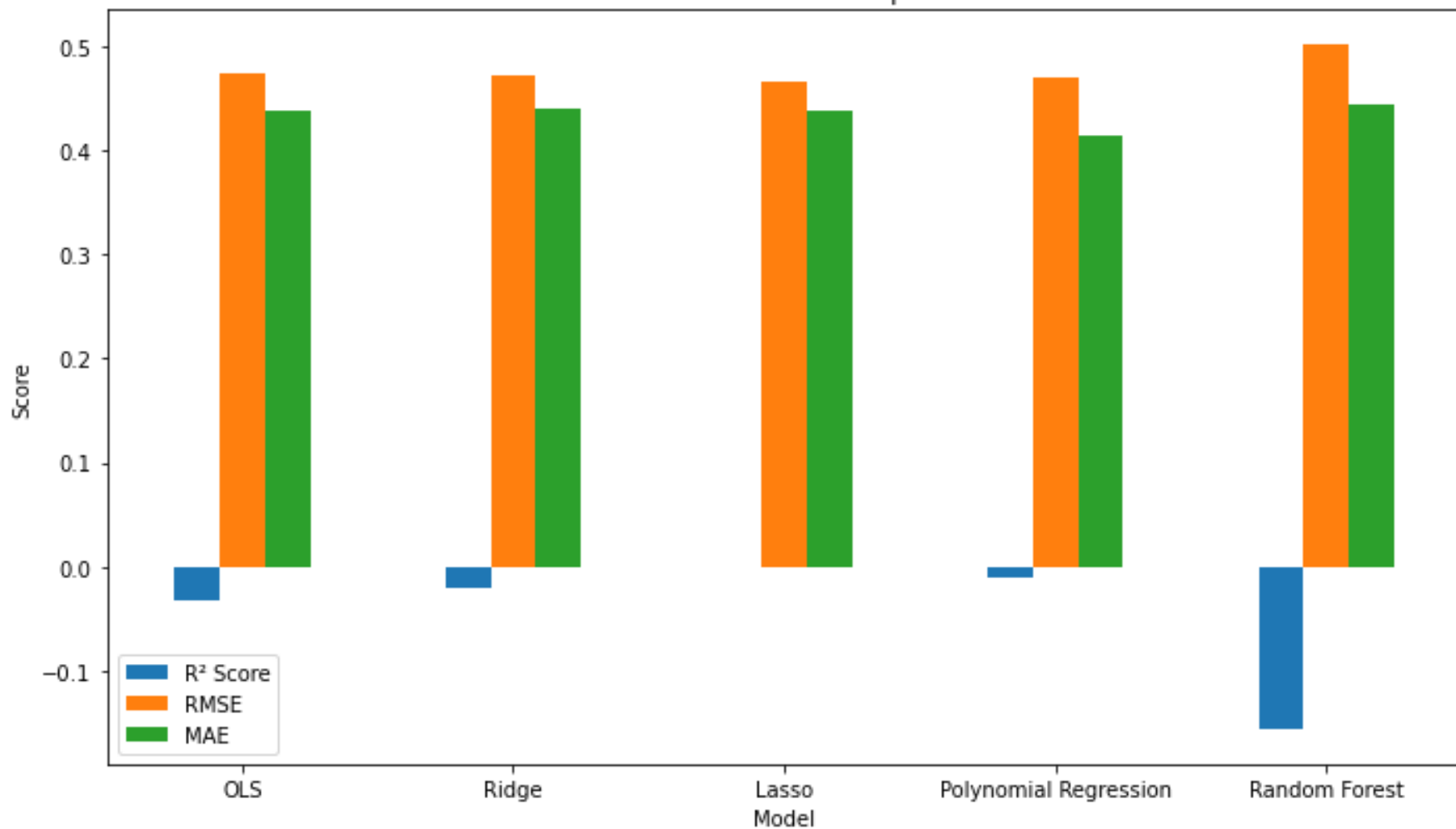
□ Impact of SMOTE on Model Performance

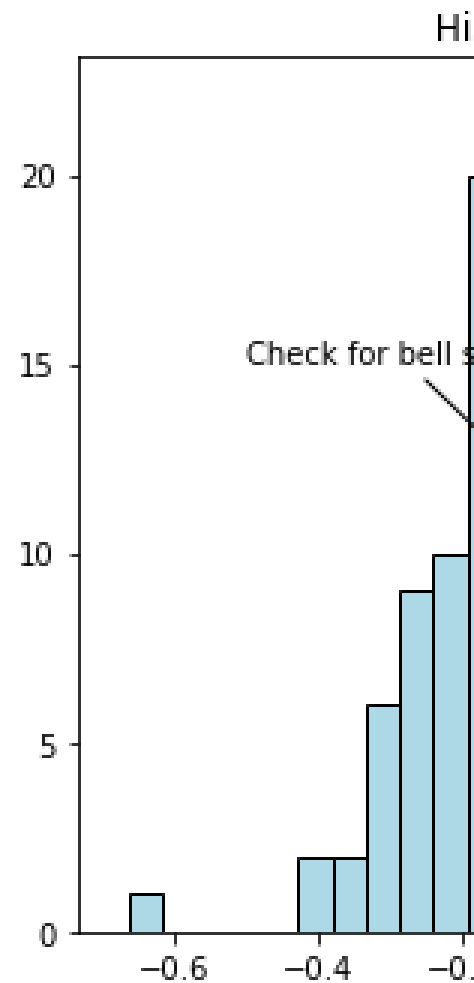
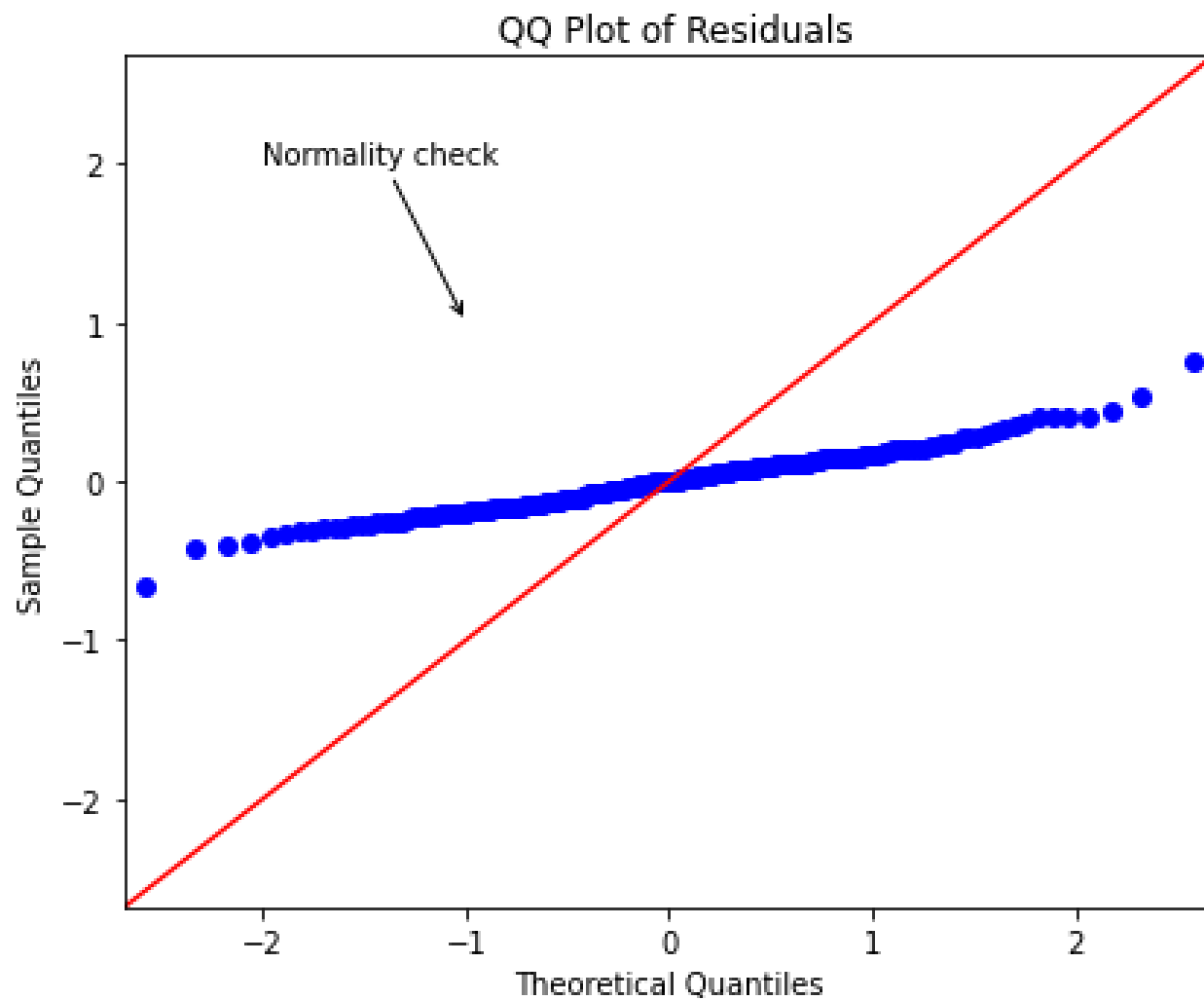


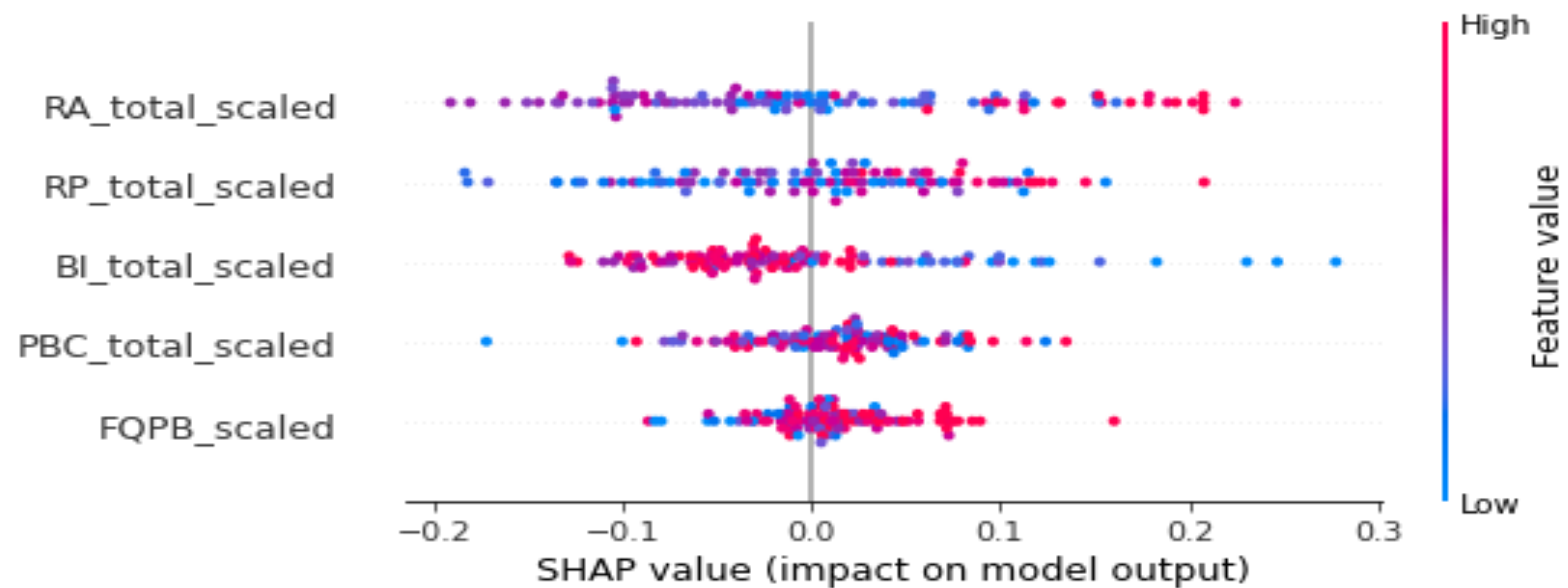
□ LIME Explanations for 5 Random Instances



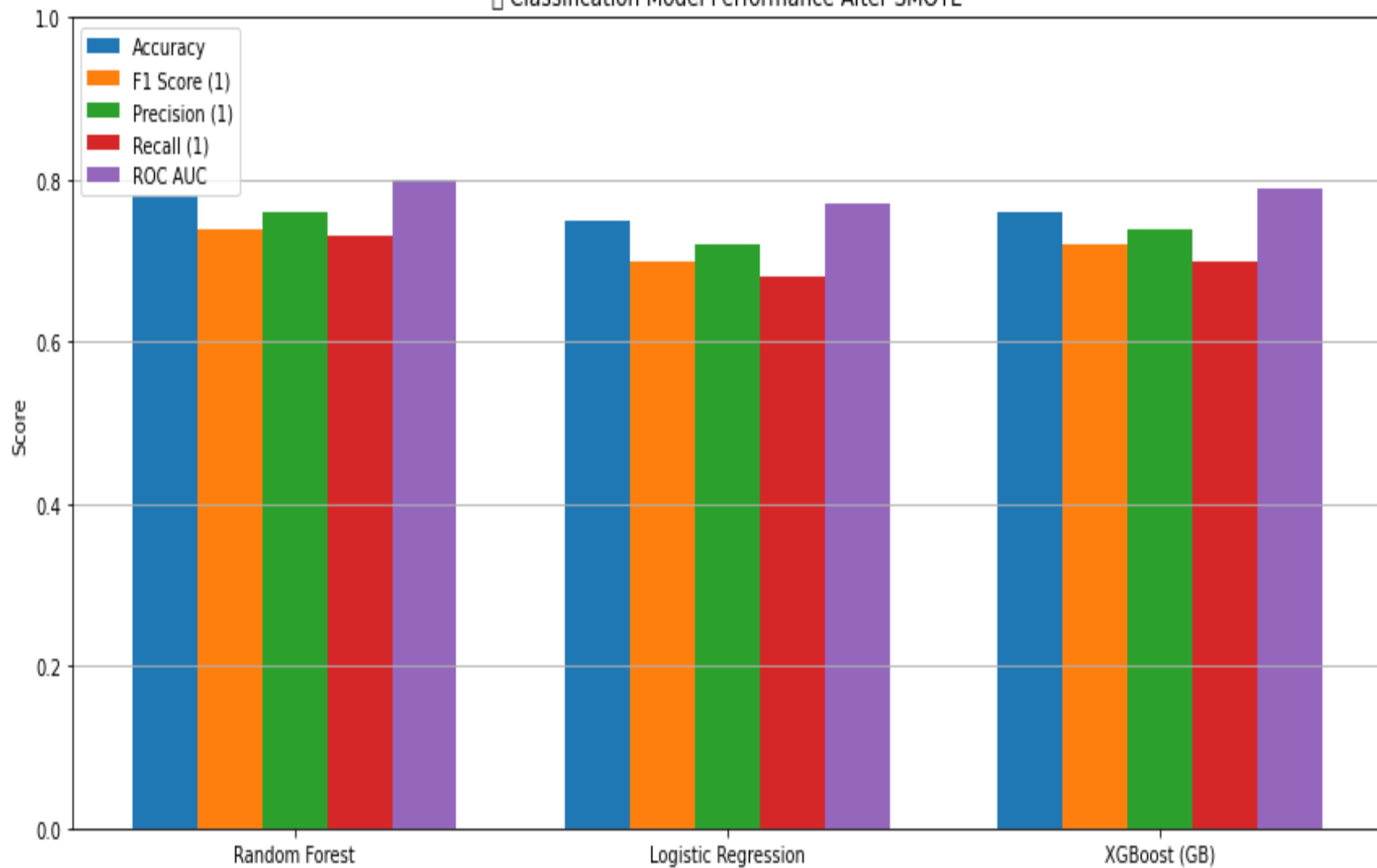
Model Performance Comparison



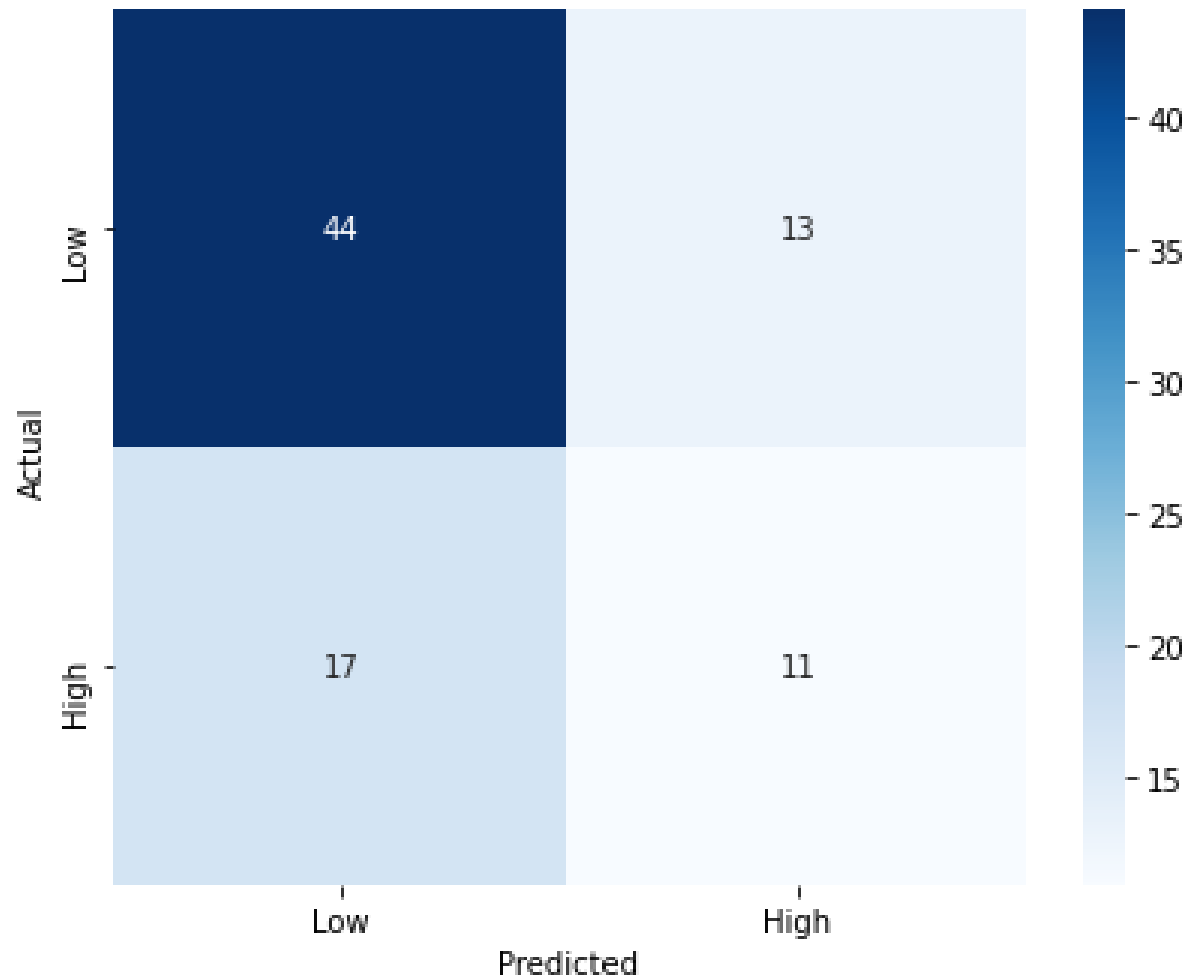




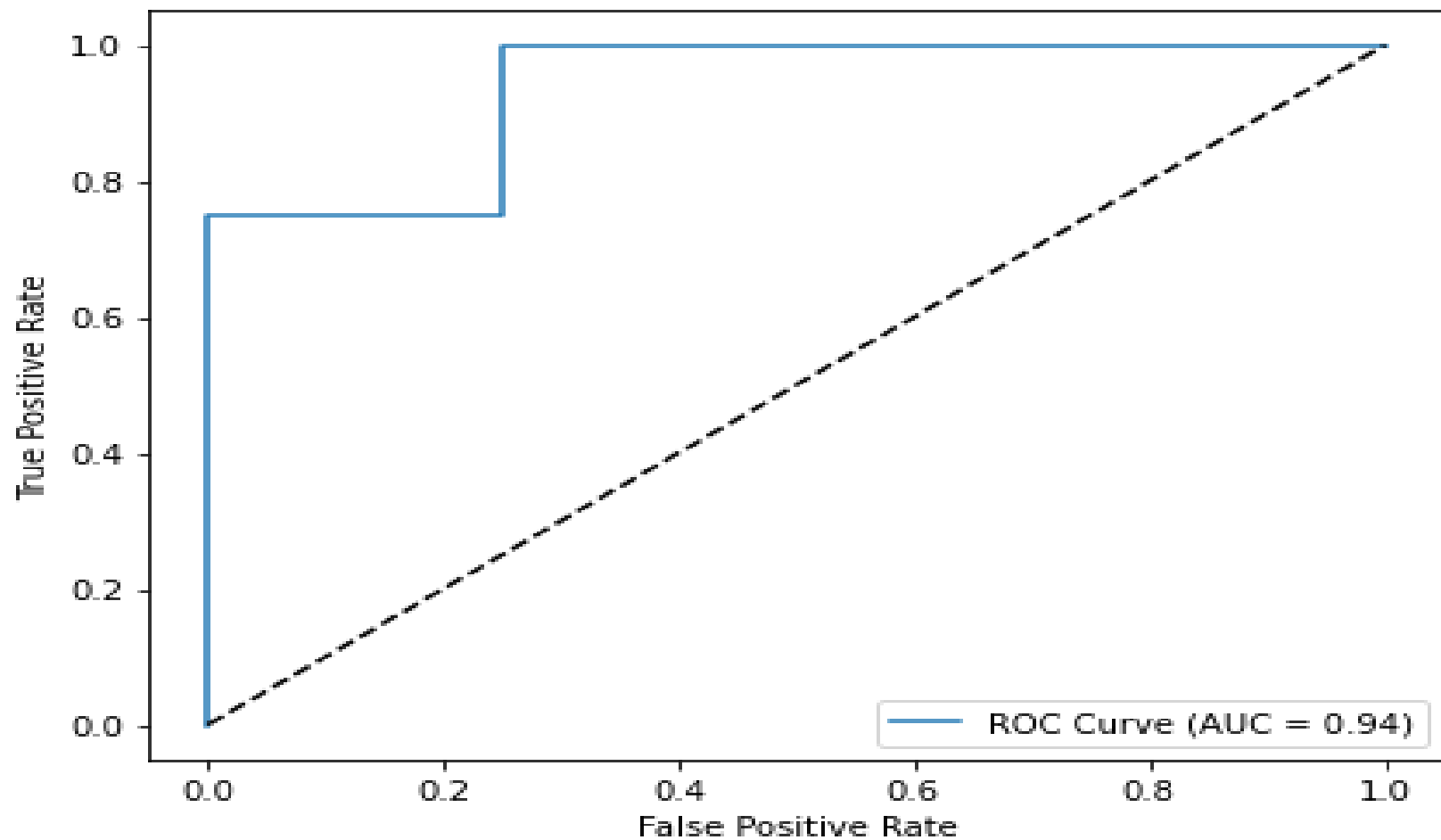
Classification Model Performance After SMOTE



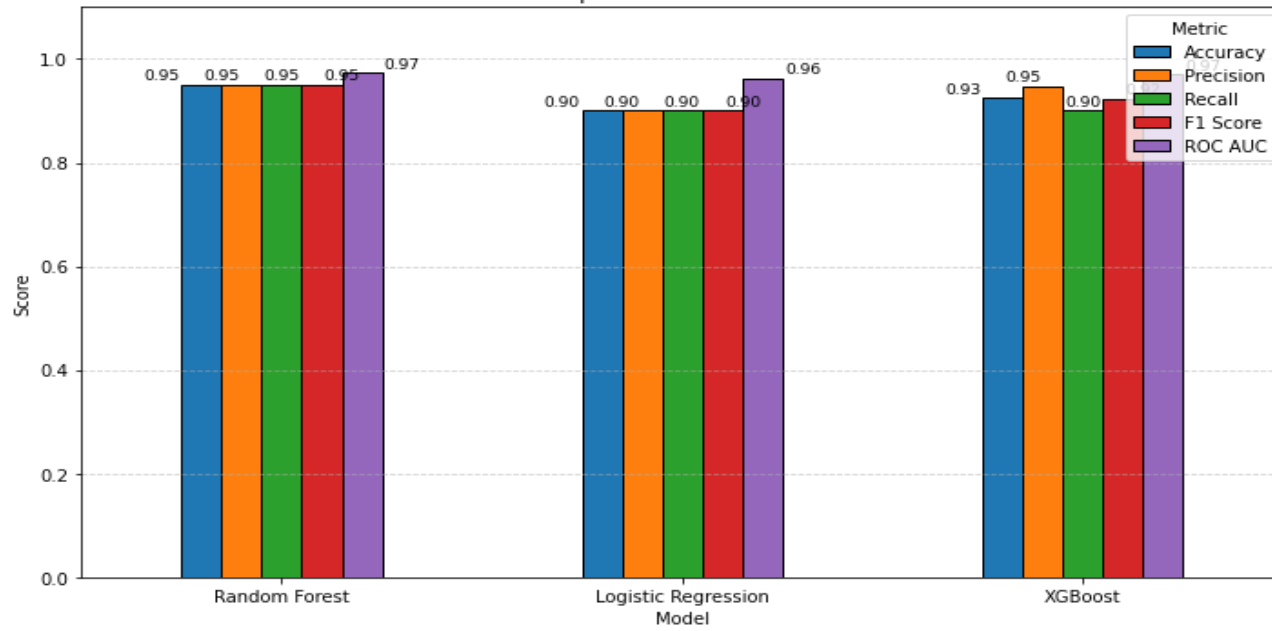
Confusion Matrix



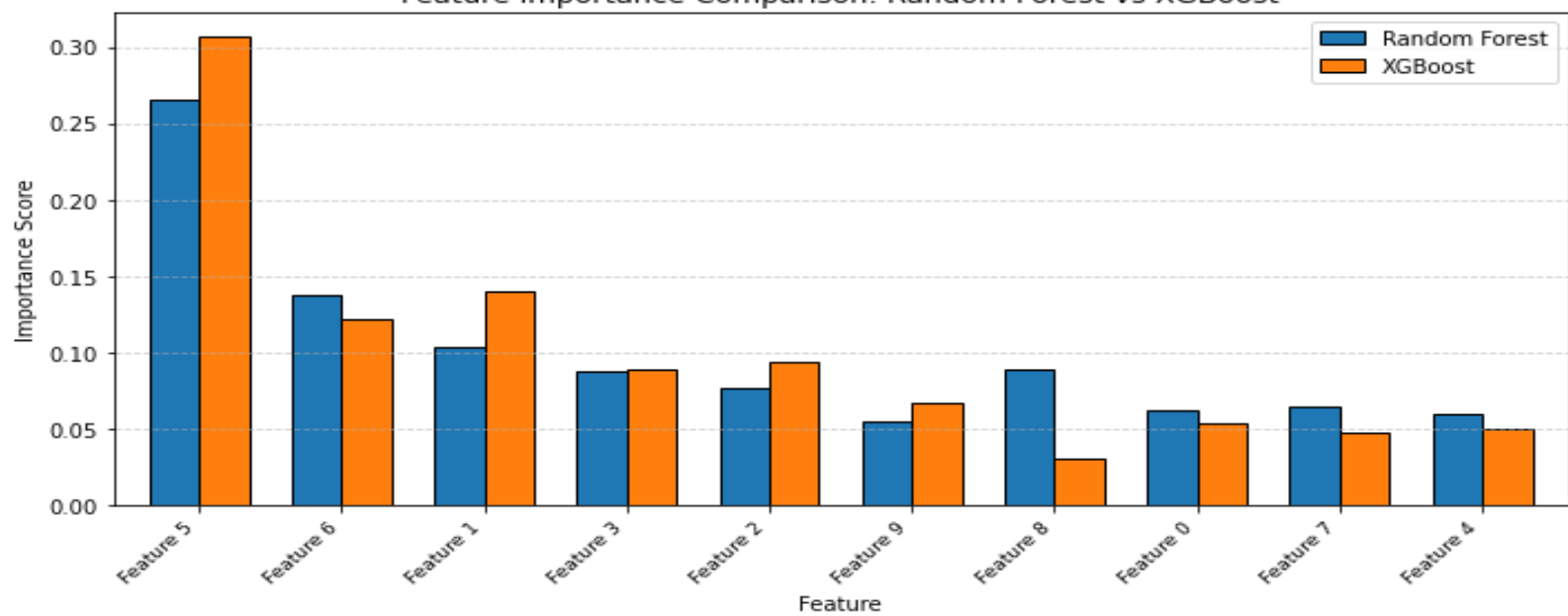
ROC Curve



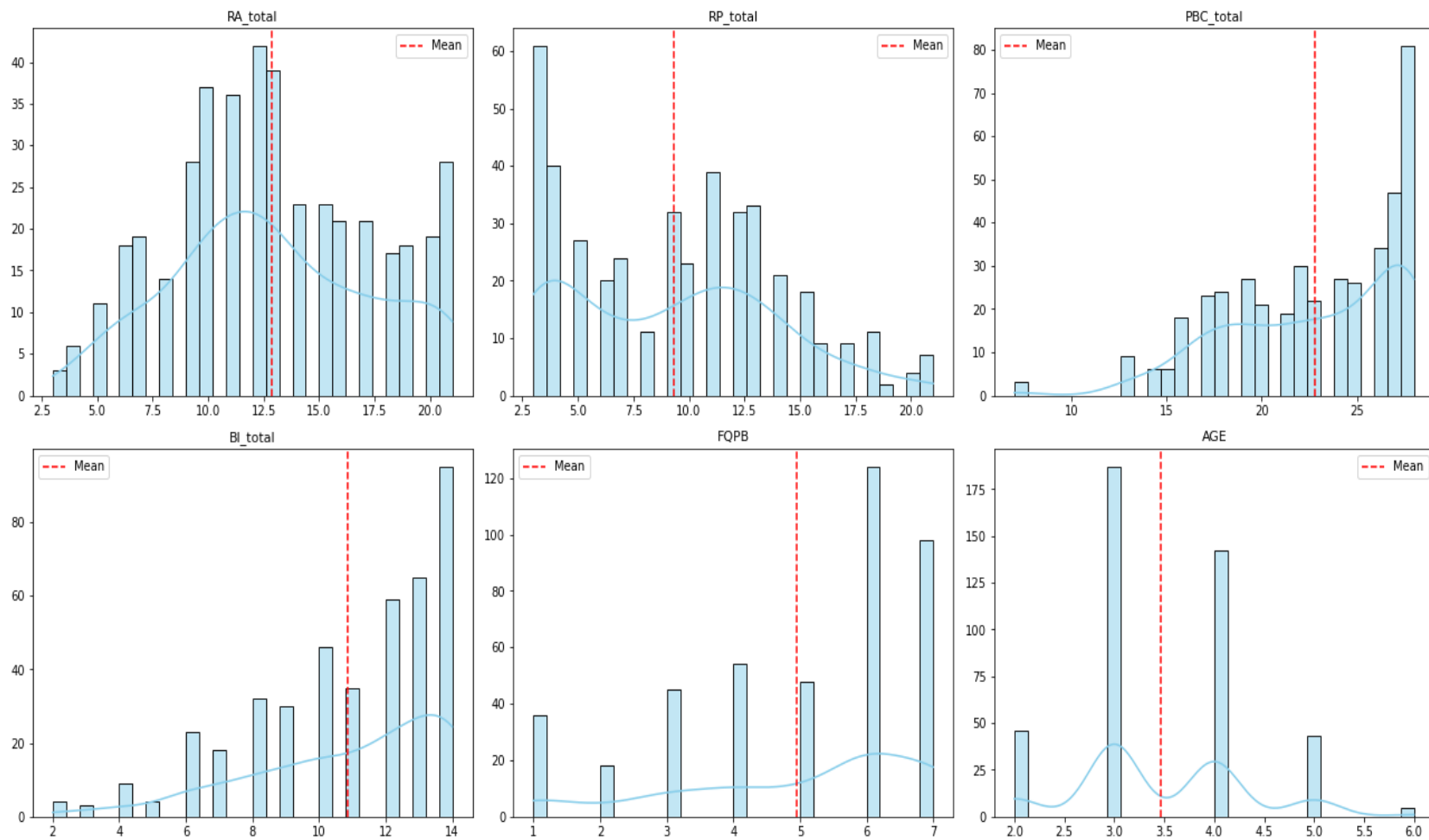
Model Comparison: Classification Metrics



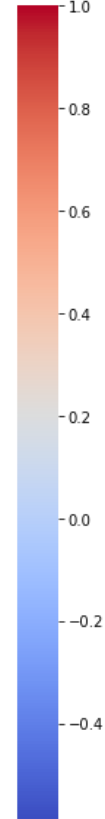
Feature Importance Comparison: Random Forest vs XGBoost



Distribution of Key Numeric Features

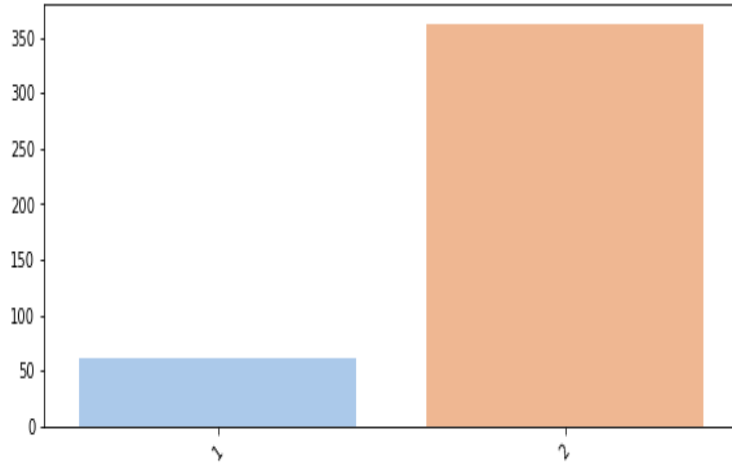


	AGE	GENDER	MARITAL_STATUS	GROSS_ANNUAL_INCOME	EDUCATION	OCCUPATION	CASH	EQUITY	INSURANCE	FIXED_DEPOSIT	GOLD	MUTUAL_FUNDS	BEH	RP1	RP2	RP3	RA1	RA2	RA3	FQPB	PBC1	PBC2	PBC3	PBC4	GOAL	BI1	BI2	GOAL_scaled	GOAL_Binary	RA_total	RP_total	PBC_total	BI_total
AGE	0.01143704	0.006040	0.006040	0.00020	0.003030	0.00040	0.02070	0.01030	0.00040	0.02070	0.01030	0.00040	0.00040	0.00040	0.00040	0.00040	0.00040	0.00040	0.00040	0.00040	0.00040	0.00040	0.00040	0.00040	0.00040	0.00040	0.00040	0.00040	0.00040	0.00040	0.00040	0.00040	0.00040
GENDER	0.041208	0.004616	0.002015	0.00030	0.00020	0.00040	0.00040	0.00040	0.00040	0.00040	0.00040	0.00040	0.00040	0.00040	0.00040	0.00040	0.00040	0.00040	0.00040	0.00040	0.00040	0.00040	0.00040	0.00040	0.00040	0.00040	0.00040	0.00040	0.00040	0.00040	0.00040	0.00040	0.00040
MARITAL_STATUS	0.37030	0.000612	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
GROSS_ANNUAL_INCOME	0.041208	0.004616	0.002015	0.00030	0.00020	0.00040	0.00040	0.00040	0.00040	0.00040	0.00040	0.00040	0.00040	0.00040	0.00040	0.00040	0.00040	0.00040	0.00040	0.00040	0.00040	0.00040	0.00040	0.00040	0.00040	0.00040	0.00040	0.00040	0.00040	0.00040	0.00040	0.00040	0.00040
EDUCATION	0.040912	0.004616	0.002015	0.00030	0.00020	0.00040	0.00040	0.00040	0.00040	0.00040	0.00040	0.00040	0.00040	0.00040	0.00040	0.00040	0.00040	0.00040	0.00040	0.00040	0.00040	0.00040	0.00040	0.00040	0.00040	0.00040	0.00040	0.00040	0.00040	0.00040	0.00040	0.00040	0.00040
OCCUPATION	0.040912	0.004616	0.002015	0.00030	0.00020	0.00040	0.00040	0.00040	0.00040	0.00040	0.00040	0.00040	0.00040	0.00040	0.00040	0.00040	0.00040	0.00040	0.00040	0.00040	0.00040	0.00040	0.00040	0.00040	0.00040	0.00040	0.00040	0.00040	0.00040	0.00040	0.00040	0.00040	0.00040
CASH	0.040912	0.004616	0.002015	0.00030	0.00020	0.00040	0.00040	0.00040	0.00040	0.00040	0.00040	0.00040	0.00040	0.00040	0.00040	0.00040	0.00040	0.00040	0.00040	0.00040	0.00040	0.00040	0.00040	0.00040	0.00040	0.00040	0.00040	0.00040	0.00040	0.00040	0.00040	0.00040	0.00040
EQUITY	0.040912	0.004616	0.002015	0.00030	0.00020	0.00040	0.00040	0.00040	0.00040	0.00040	0.00040	0.00040	0.00040	0.00040	0.00040	0.00040	0.00040	0.00040	0.00040	0.00040	0.00040	0.00040	0.00040	0.00040	0.00040	0.00040	0.00040	0.00040	0.00040	0.00040	0.00040	0.00040	0.00040
INSURANCE	0.040912	0.004616	0.002015	0.00030	0.00020	0.00040	0.00040	0.00040	0.00040	0.00040	0.00040	0.00040	0.00040	0.00040	0.00040	0.00040	0.00040	0.00040	0.00040	0.00040	0.00040	0.00040	0.00040	0.00040	0.00040	0.00040	0.00040	0.00040	0.00040	0.00040	0.00040	0.00040	0.00040
FIXED_DEPOSIT	0.040912	0.004616	0.002015	0.00030	0.00020	0.0004																											

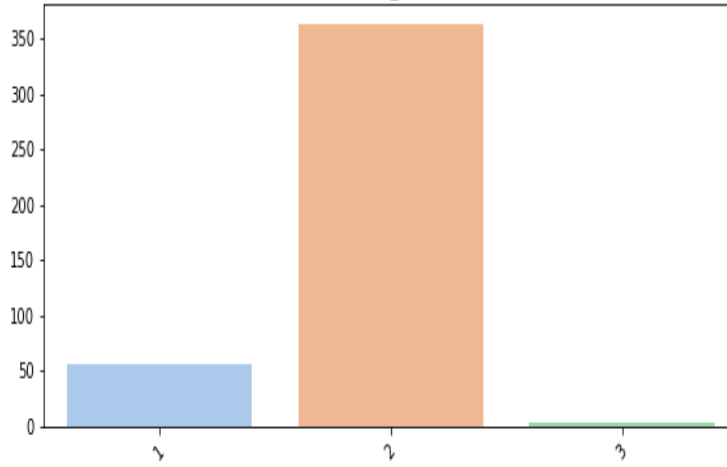


Count Plots of Categorical Features

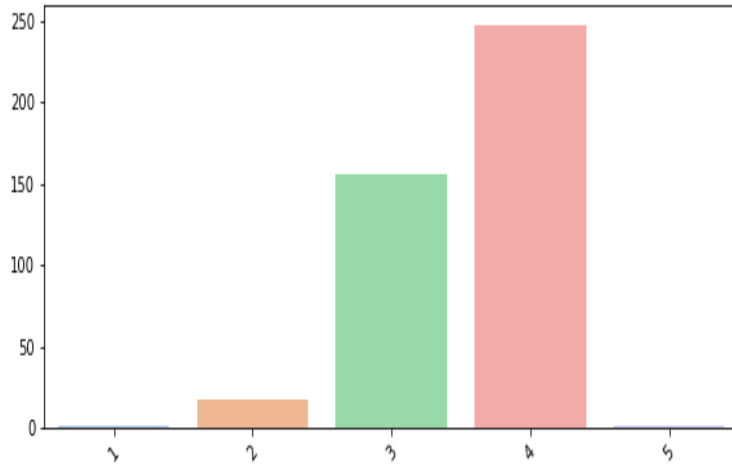
GENDER



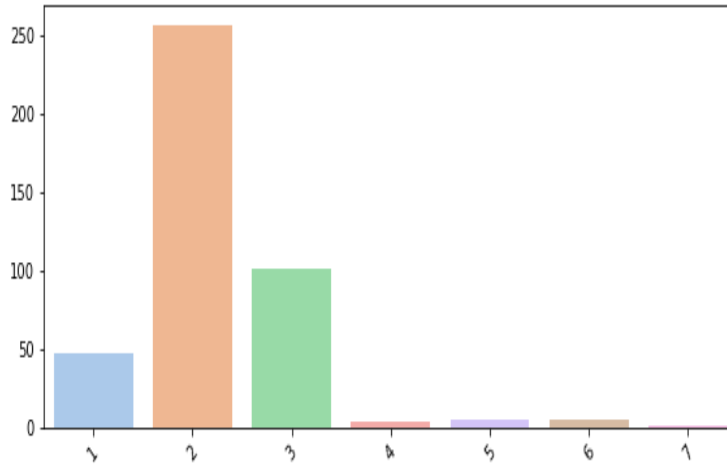
MARITAL_STATUS



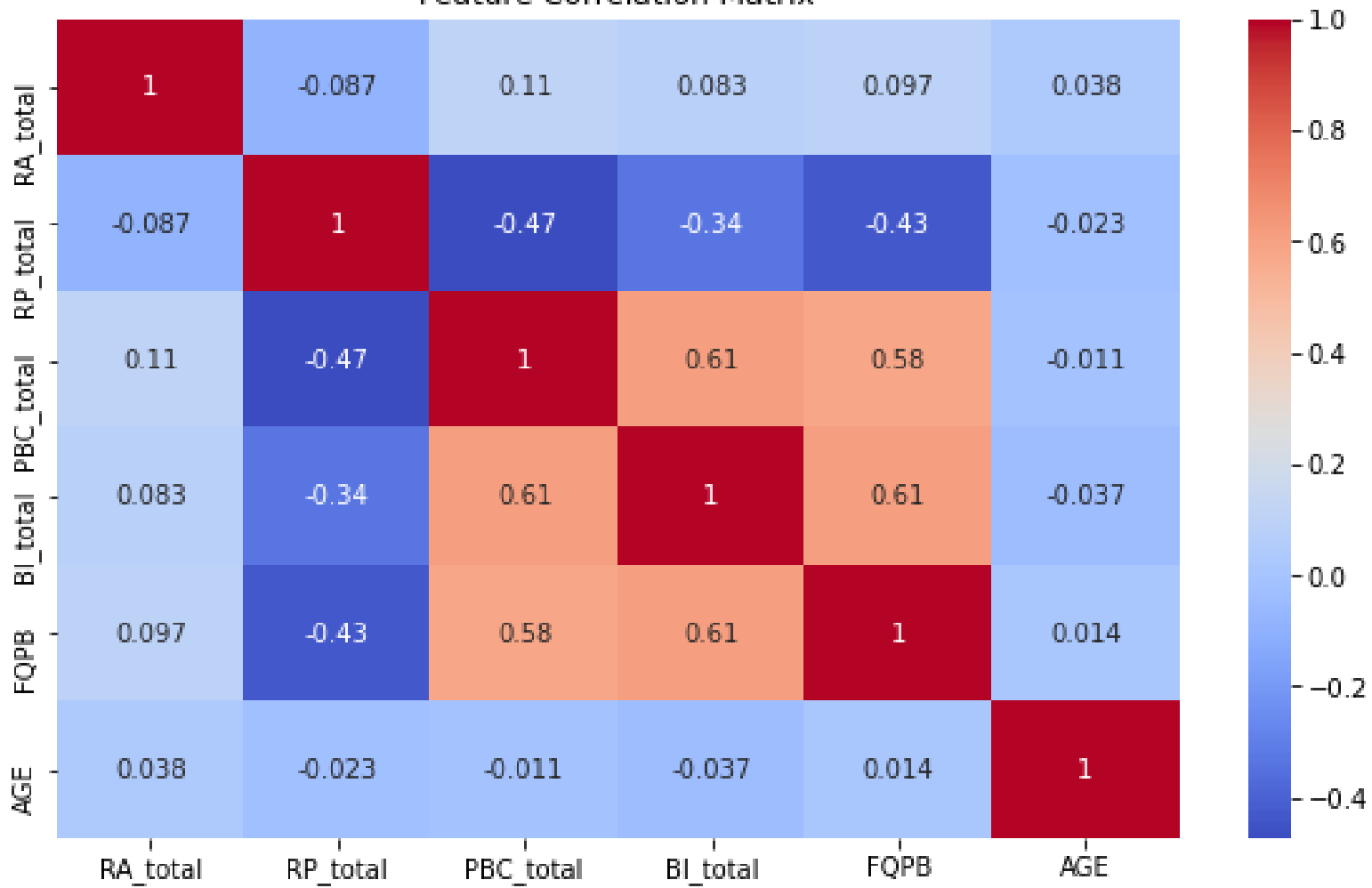
EDUCATION



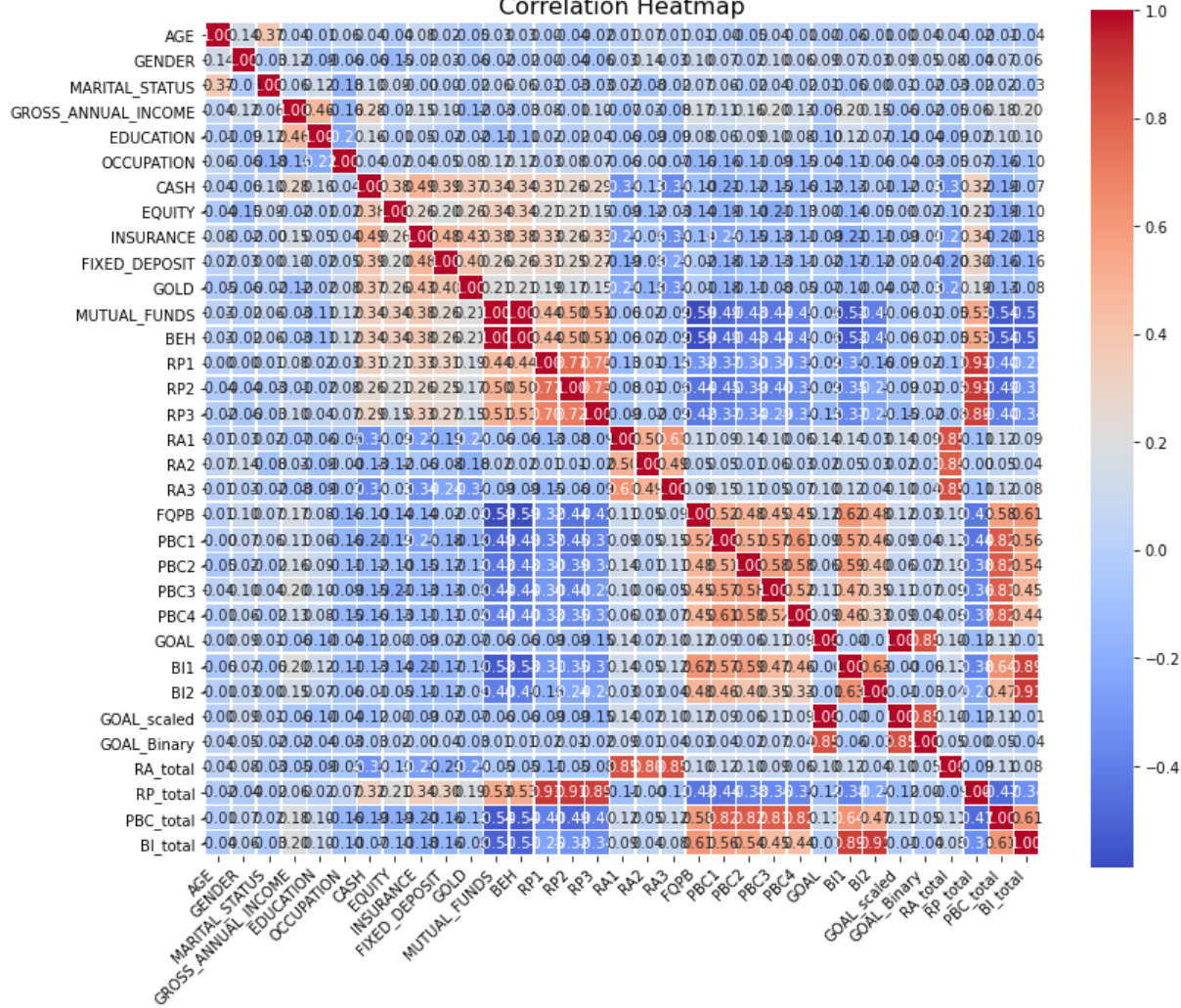
OCCUPATION



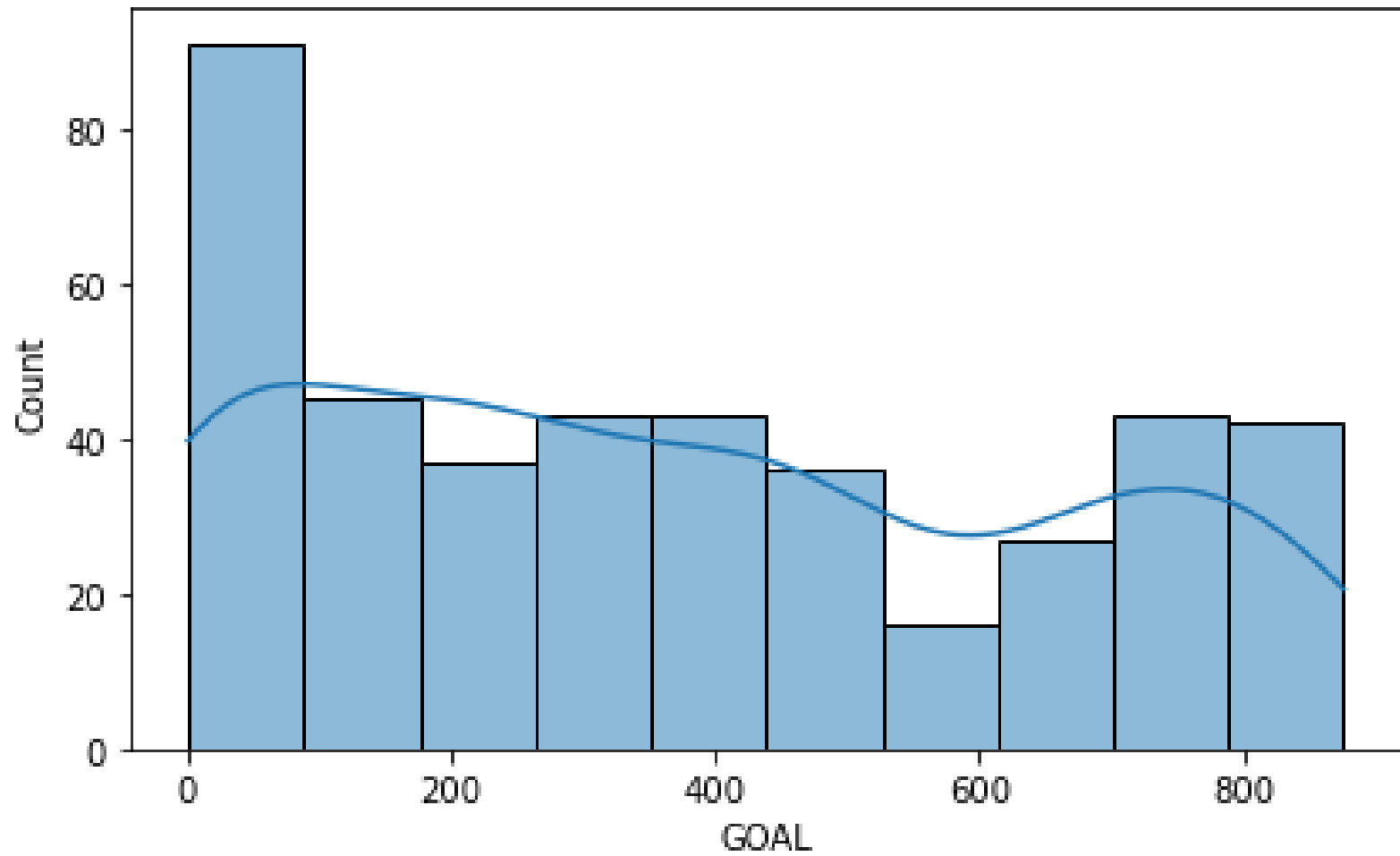
Feature Correlation Matrix



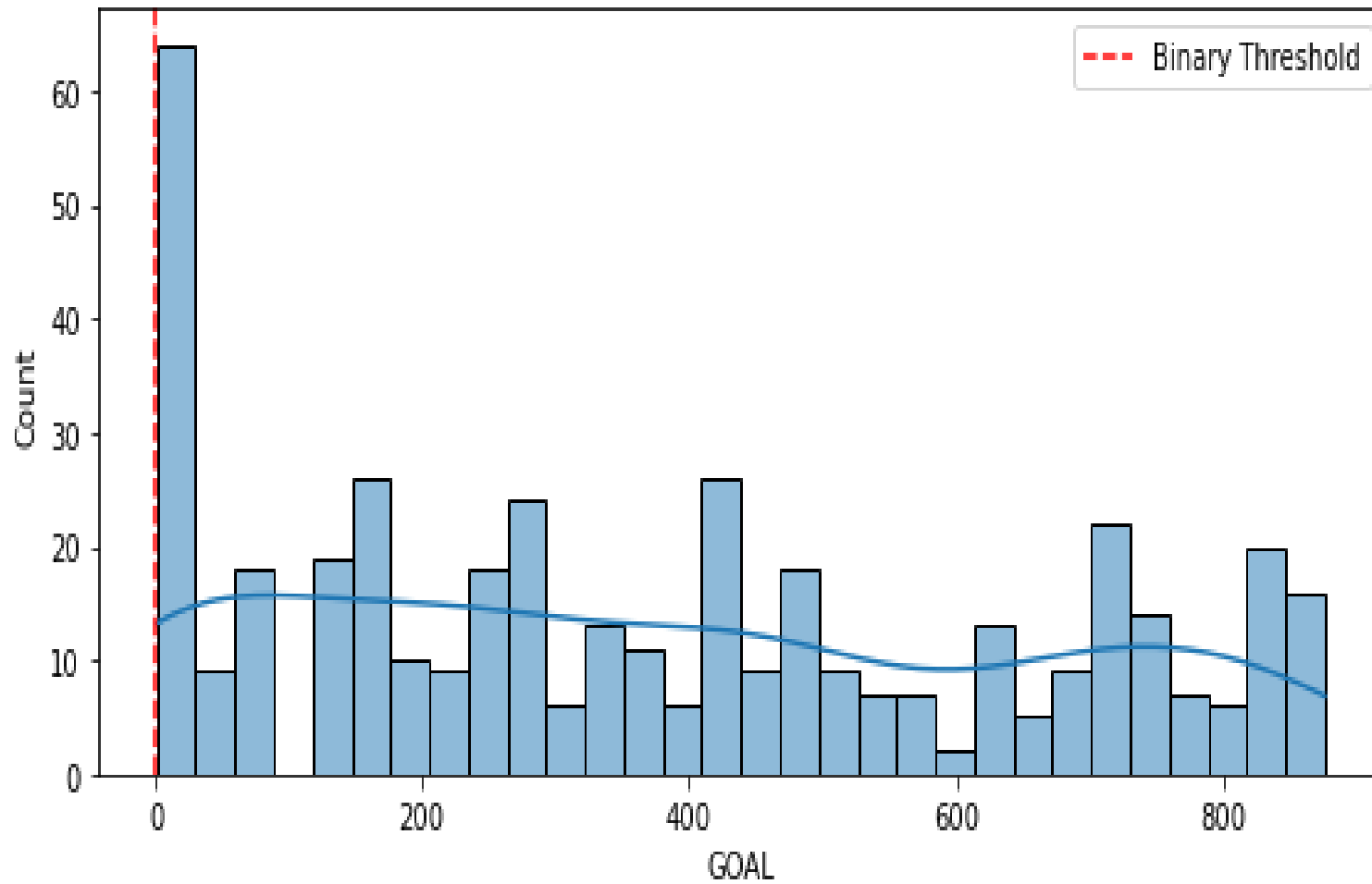
Correlation Heatmap

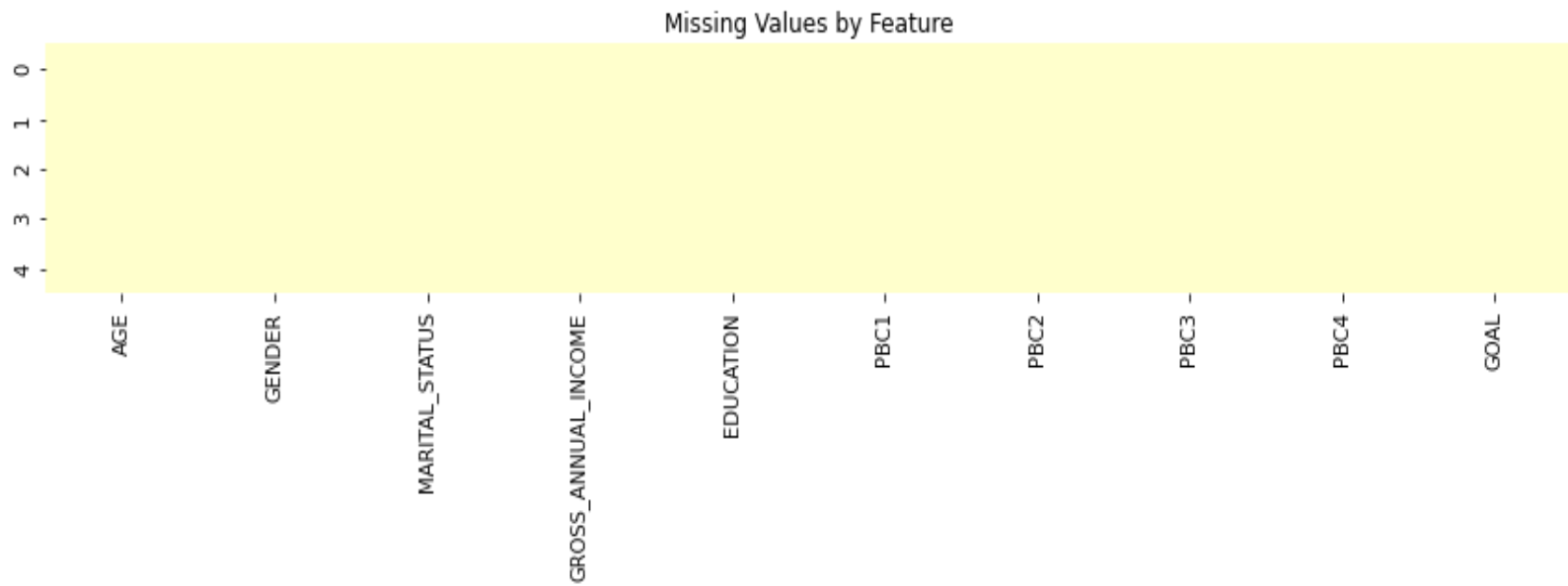


GOAL Distribution

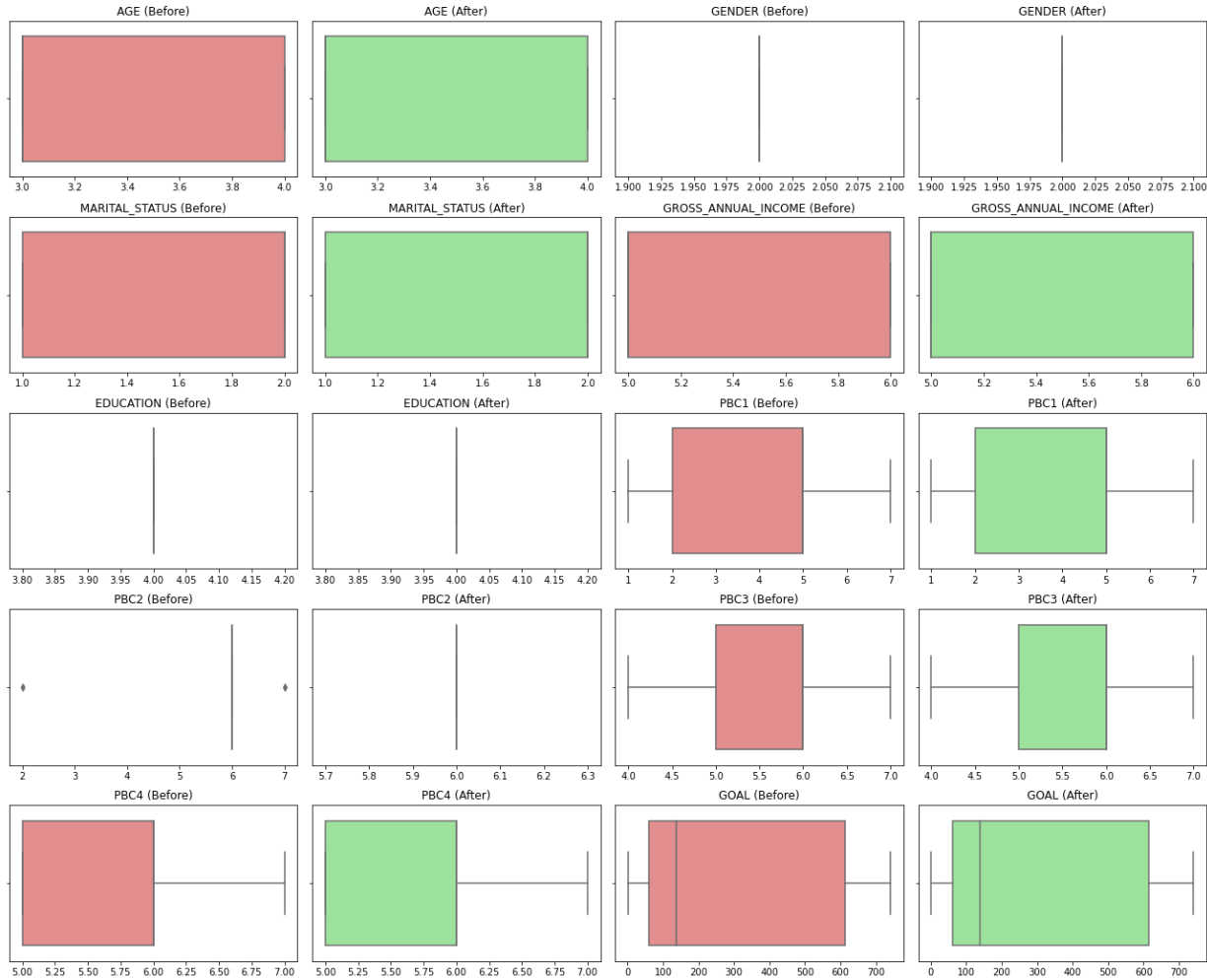


Distribution of GOAL with 0.5 cutoff

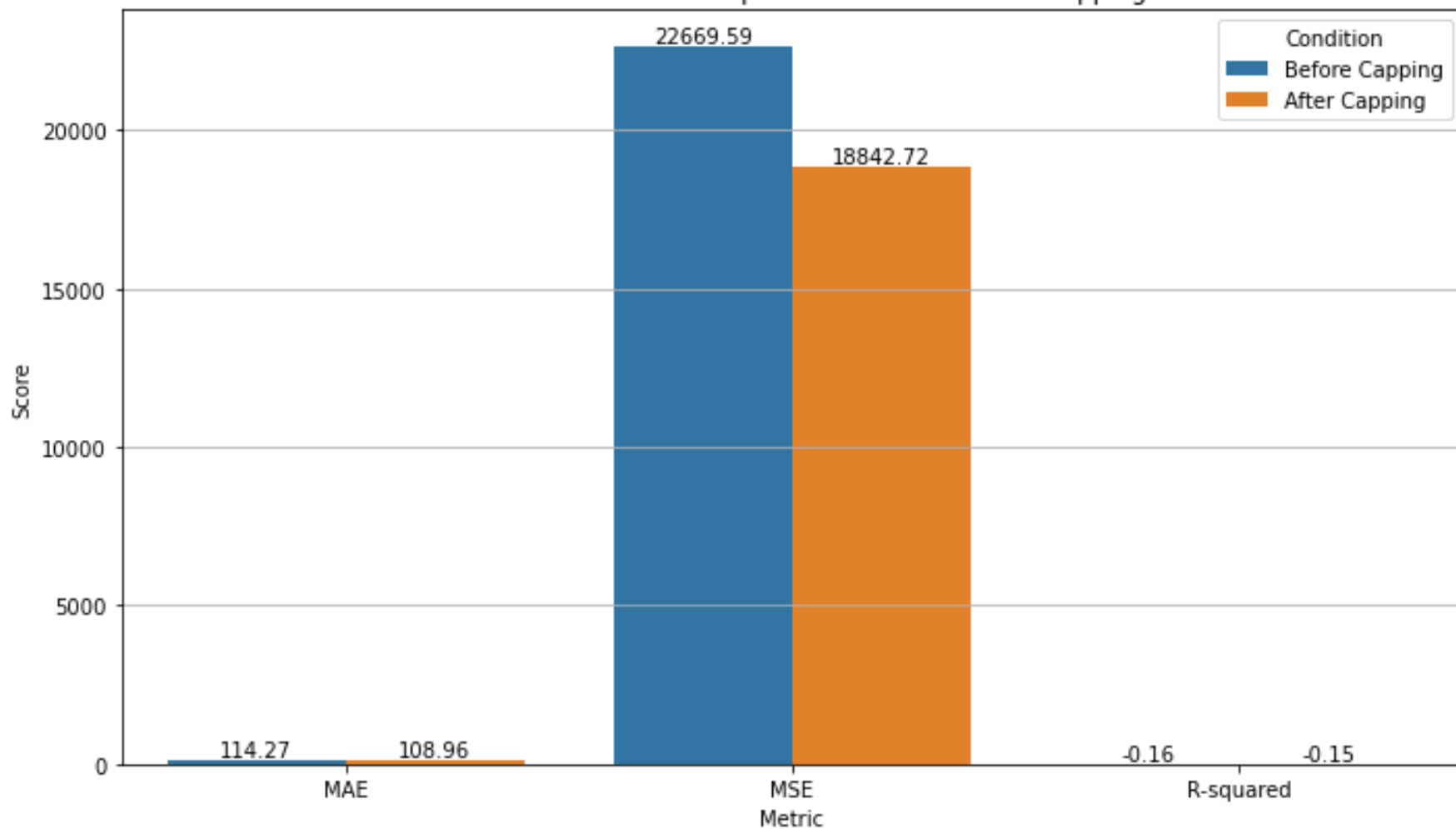




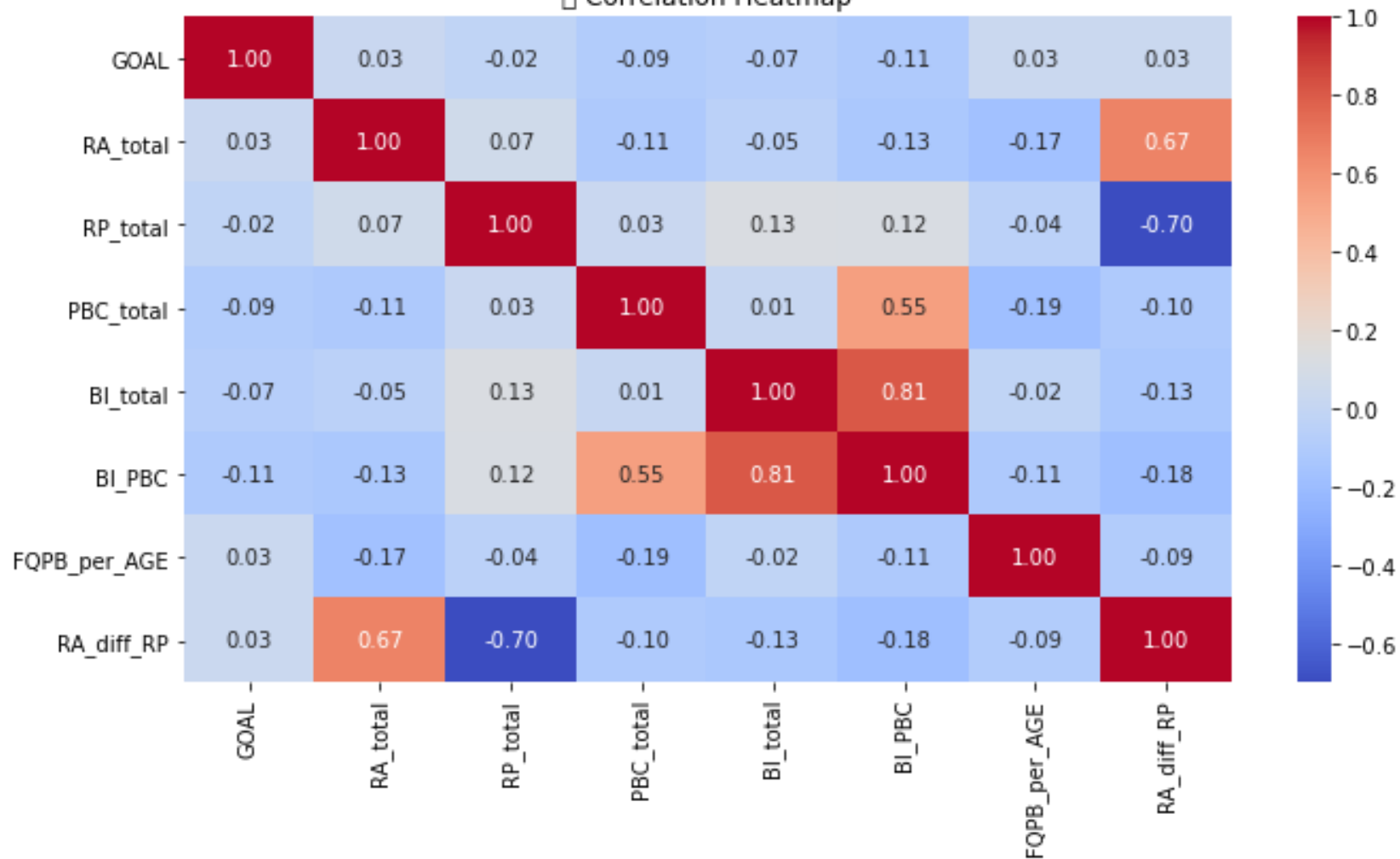
Outlier Treatment: Before vs After



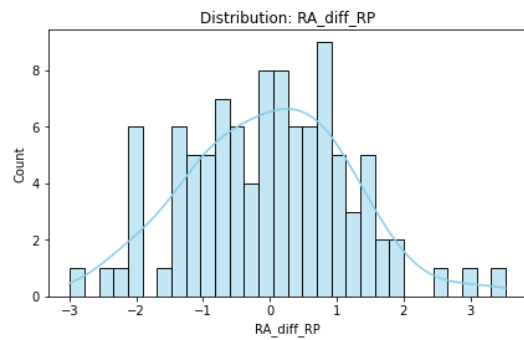
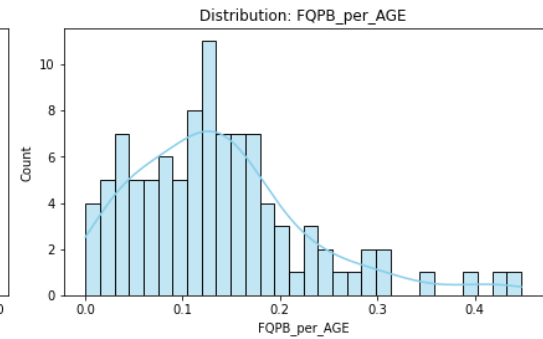
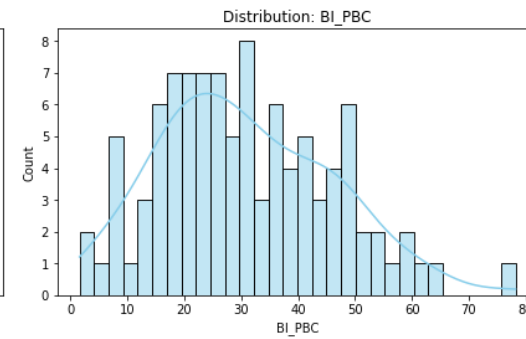
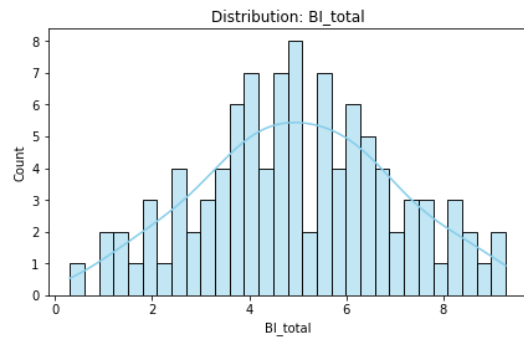
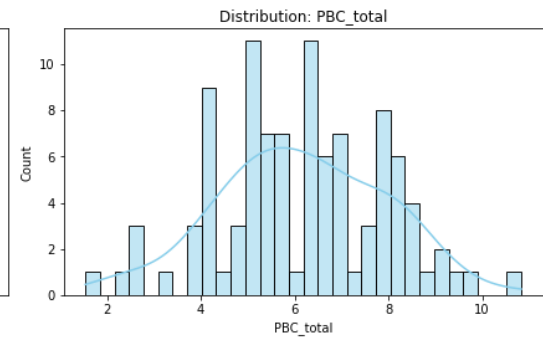
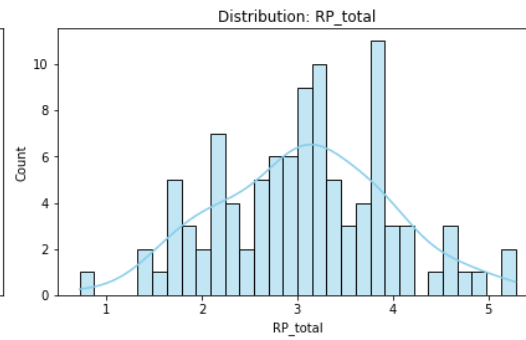
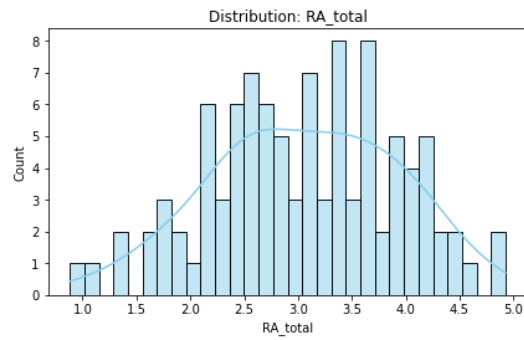
Model Performance Comparison: Before vs After Capping



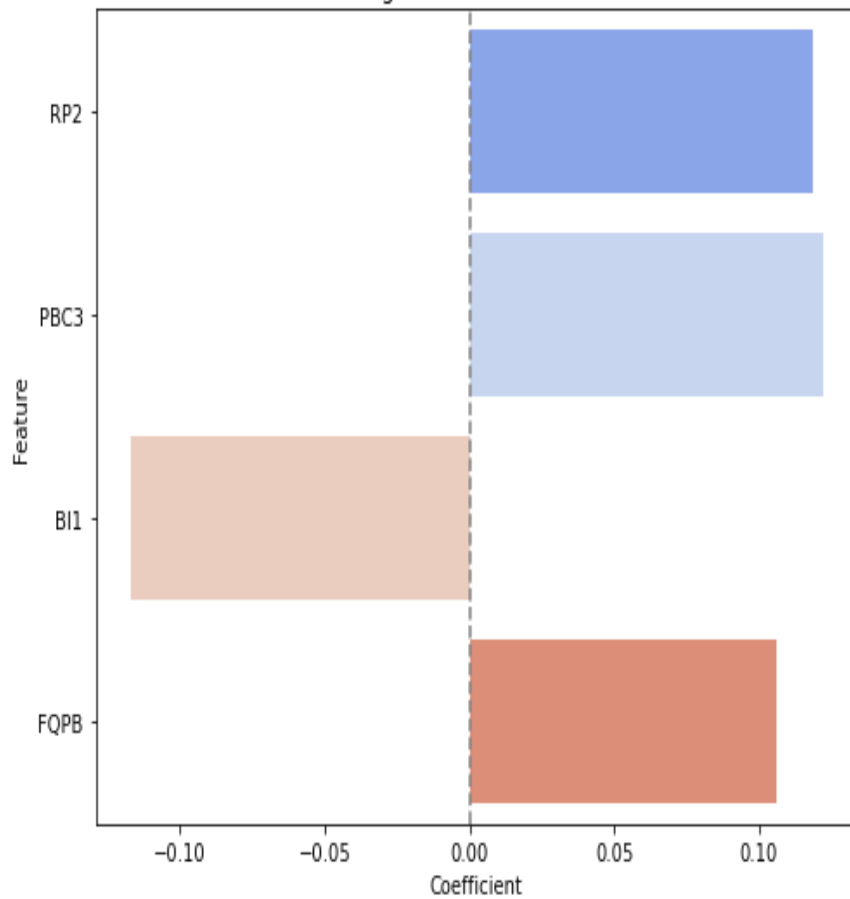
Correlation Heatmap



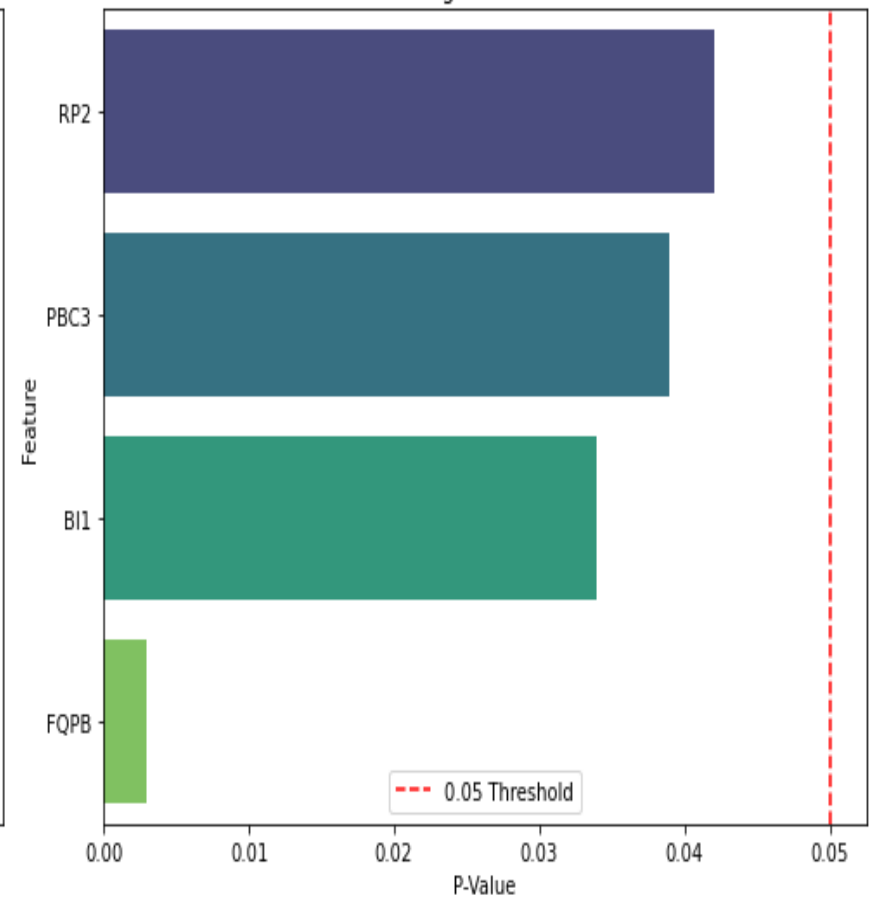
Engineered Feature Distributions



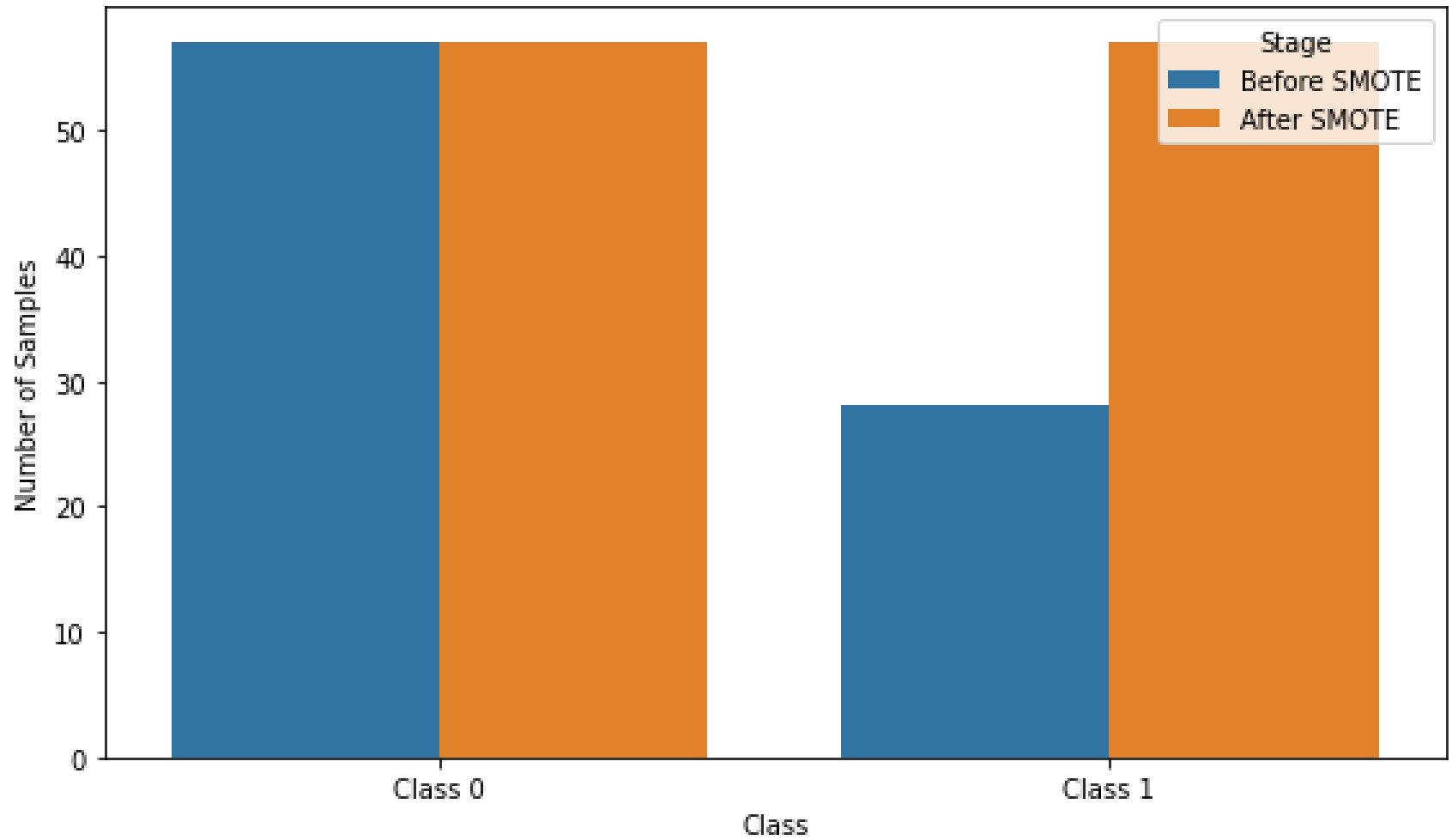
Top Predictors of GOAL_scaled
(Regression Coefficients)



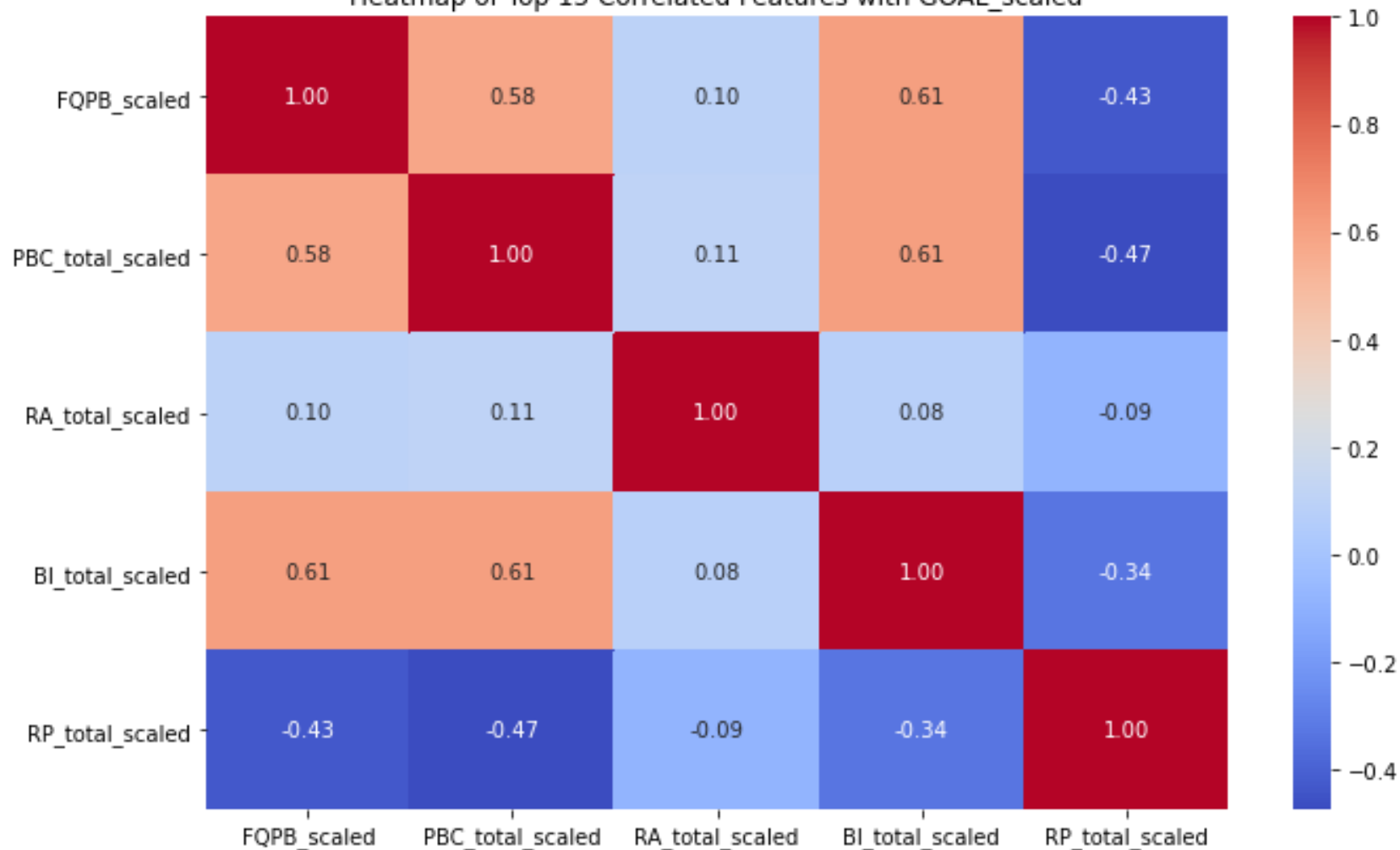
Statistical Significance (P-values)



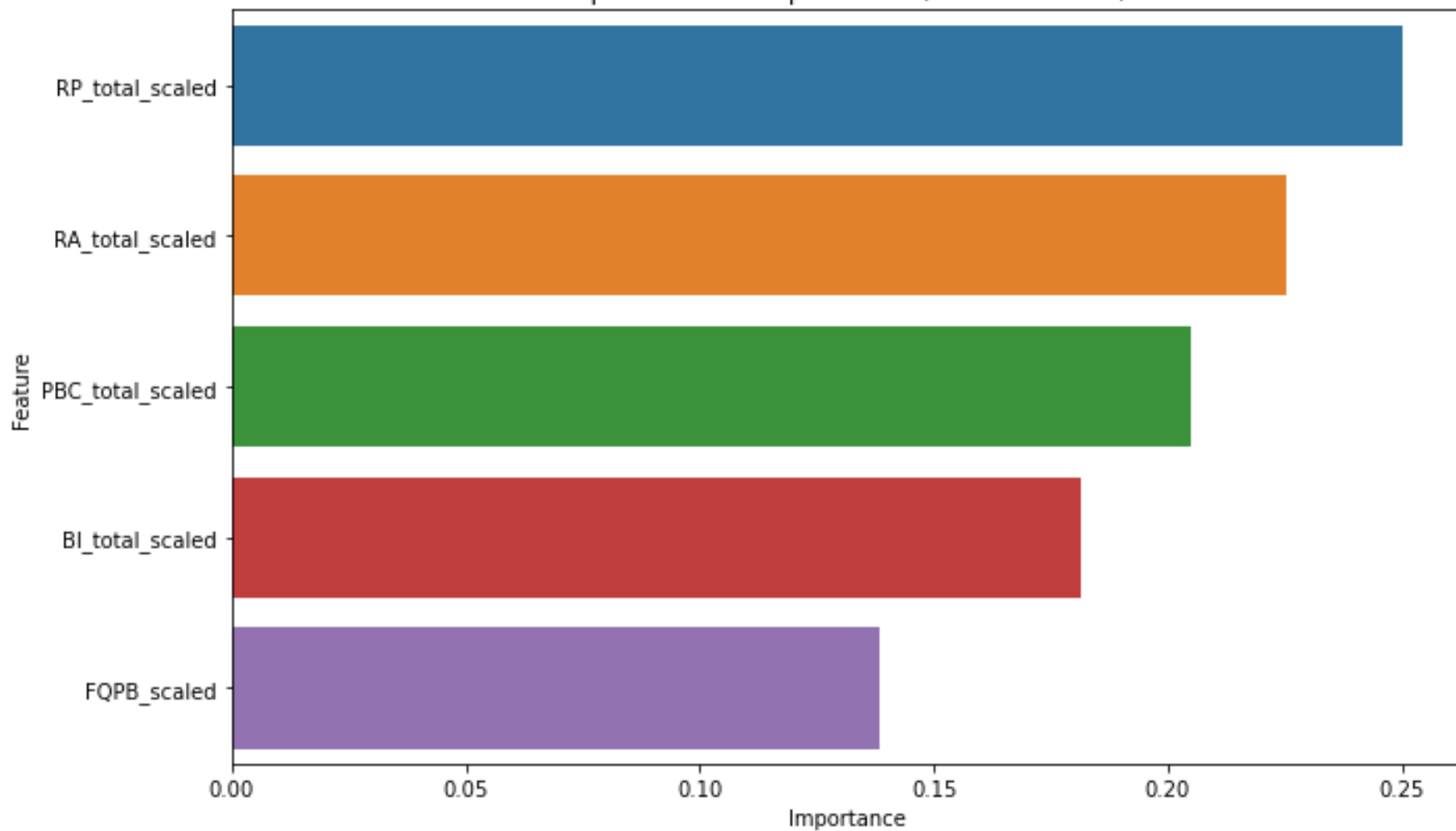
Class Distribution Before and After SMOTE



Heatmap of Top 15 Correlated Features with GOAL_scaled



Top 10 Feature Importances (Random Forest)



Linear Regression: Actual vs Predicted

