

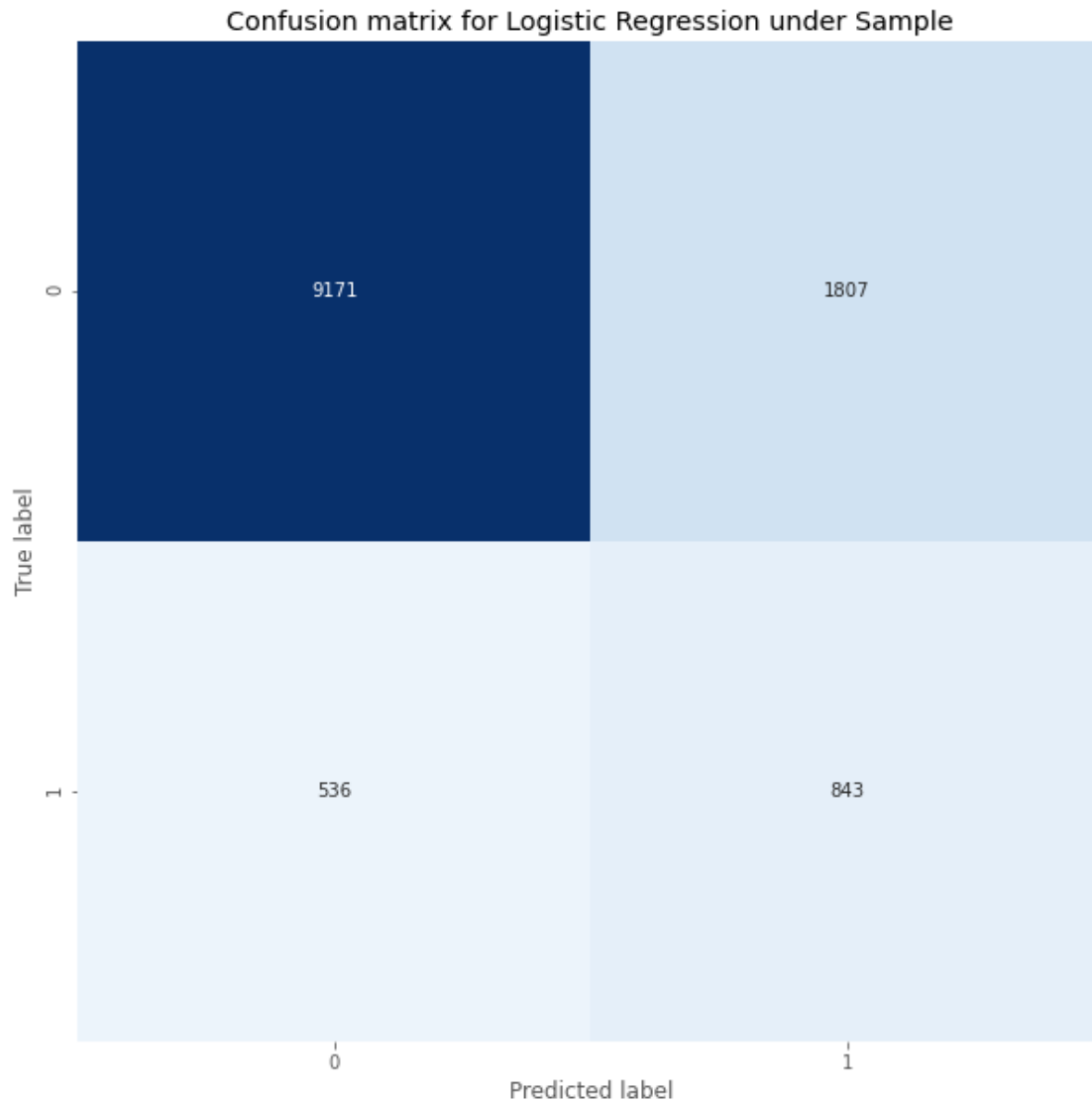
confusion_matrix_appendix

February 9, 2021

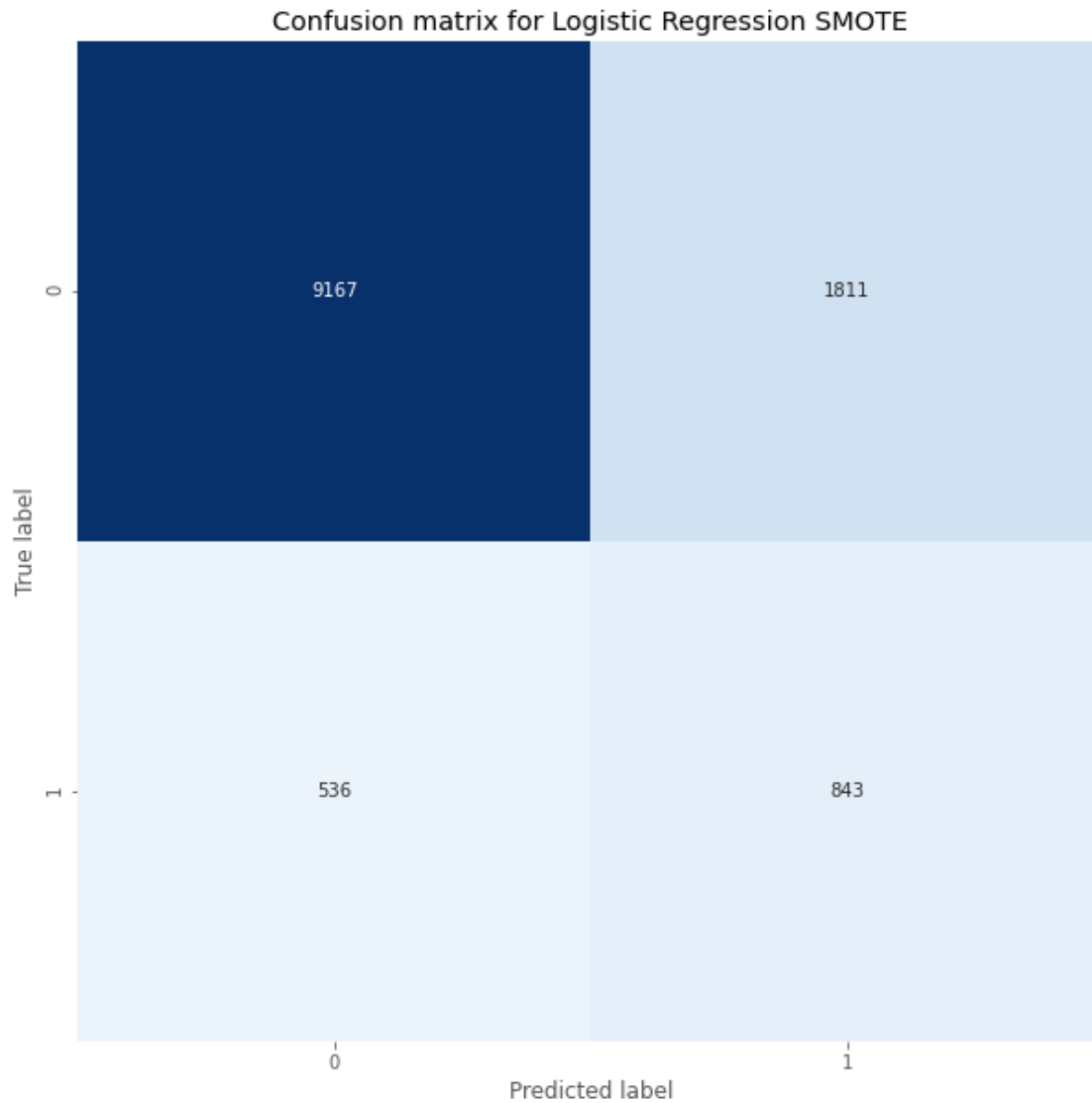
1 Confusion matrix appendix

In this file we can see a list of the remaining confusion matrix from raport (analysis)
Bank_Marketing_Raport.pdf

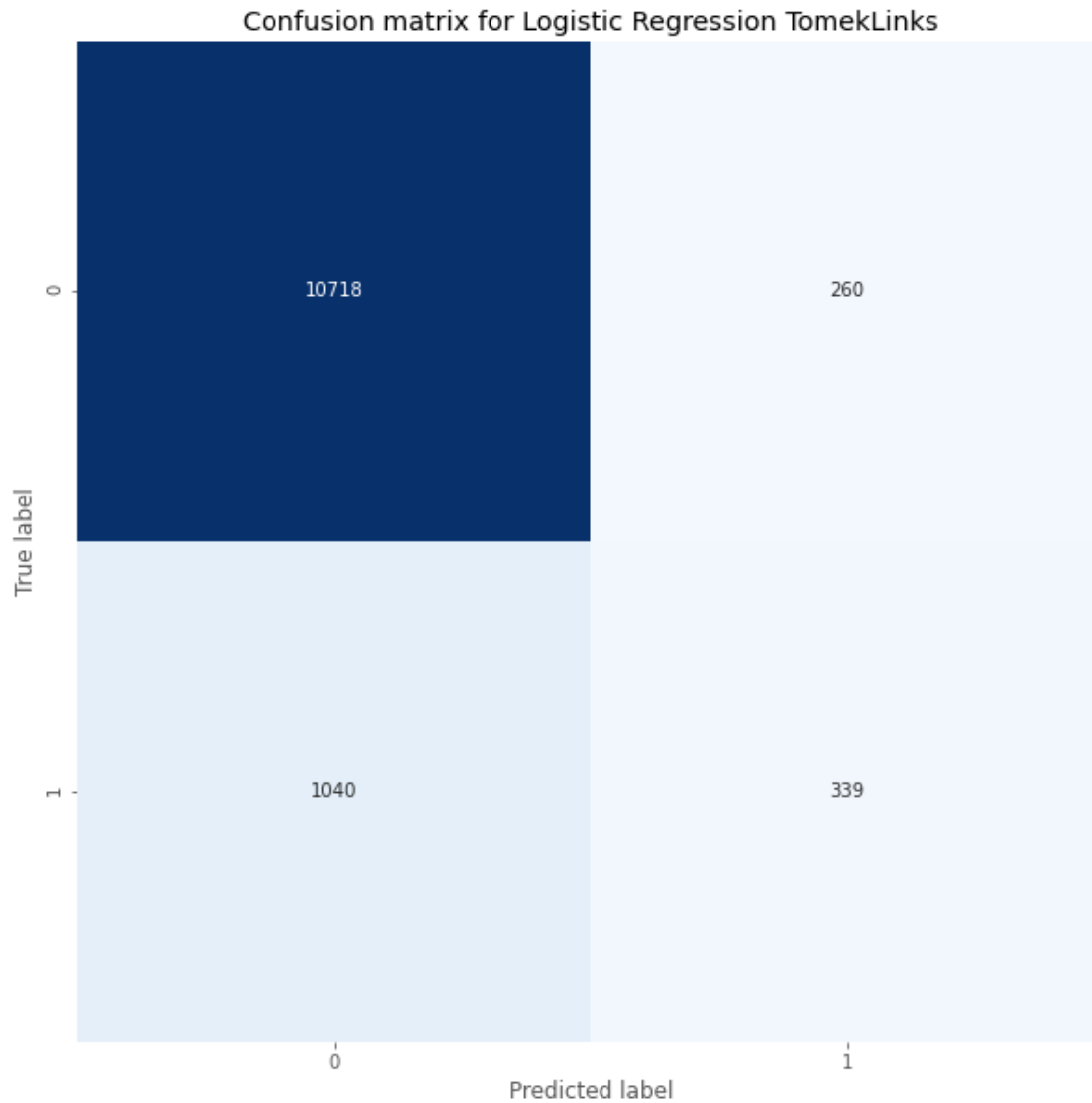
Results for Logistic Regression under Sample:
Logistic Regression under Sample accuracy: 0.8104
Logistic Regression under Sample f-score: 0.4185
Logistic Regression under Sample recall: 0.6113
Logistic Regression under Sample log_loss: 0.5306



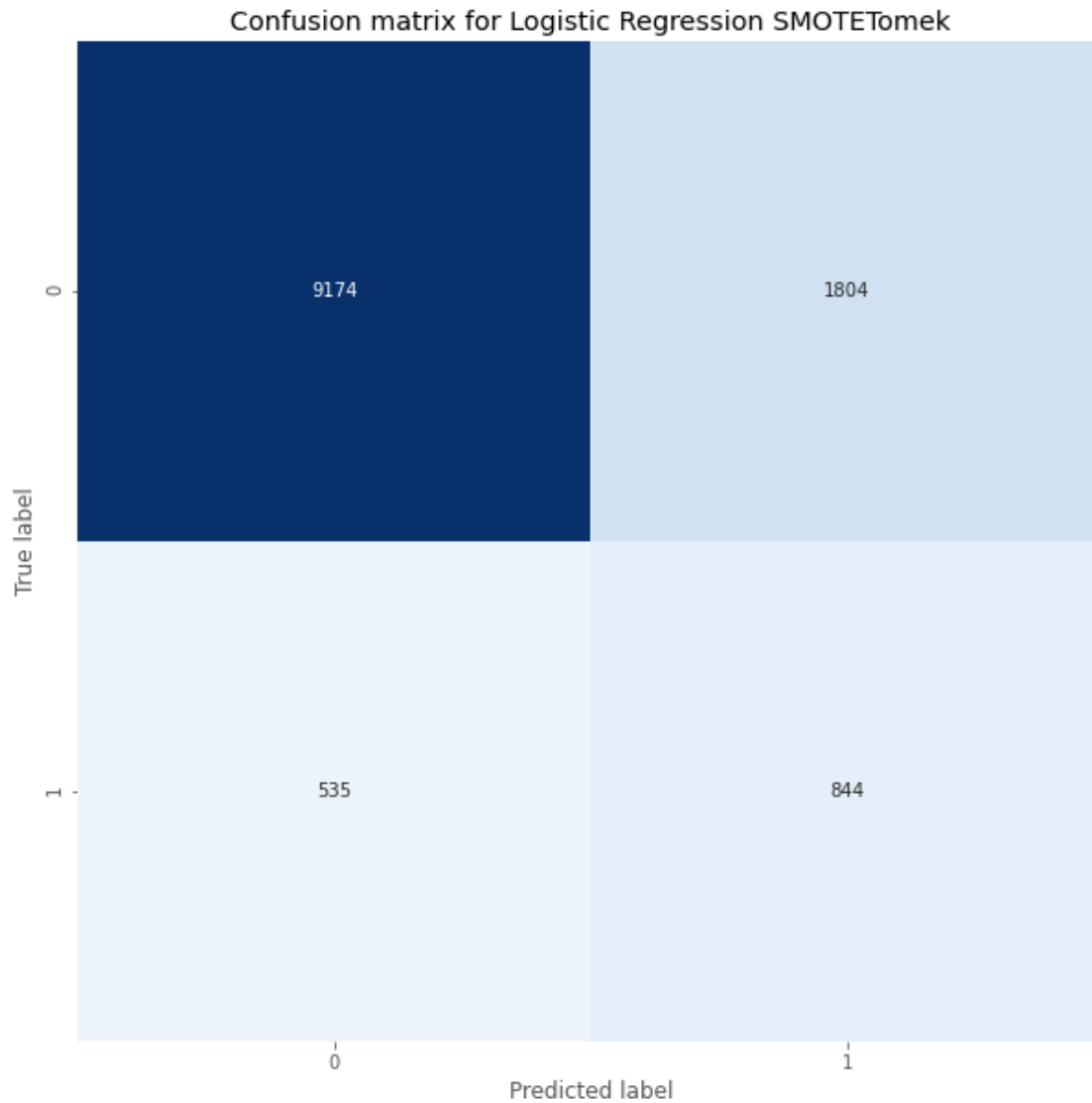
Results for Logistic Regression SMOTE:
Logistic Regression SMOTE accuracy: 0.8101
Logistic Regression SMOTE f-score: 0.4181
Logistic Regression SMOTE recall: 0.6113
Logistic Regression SMOTE log_loss: 0.5293



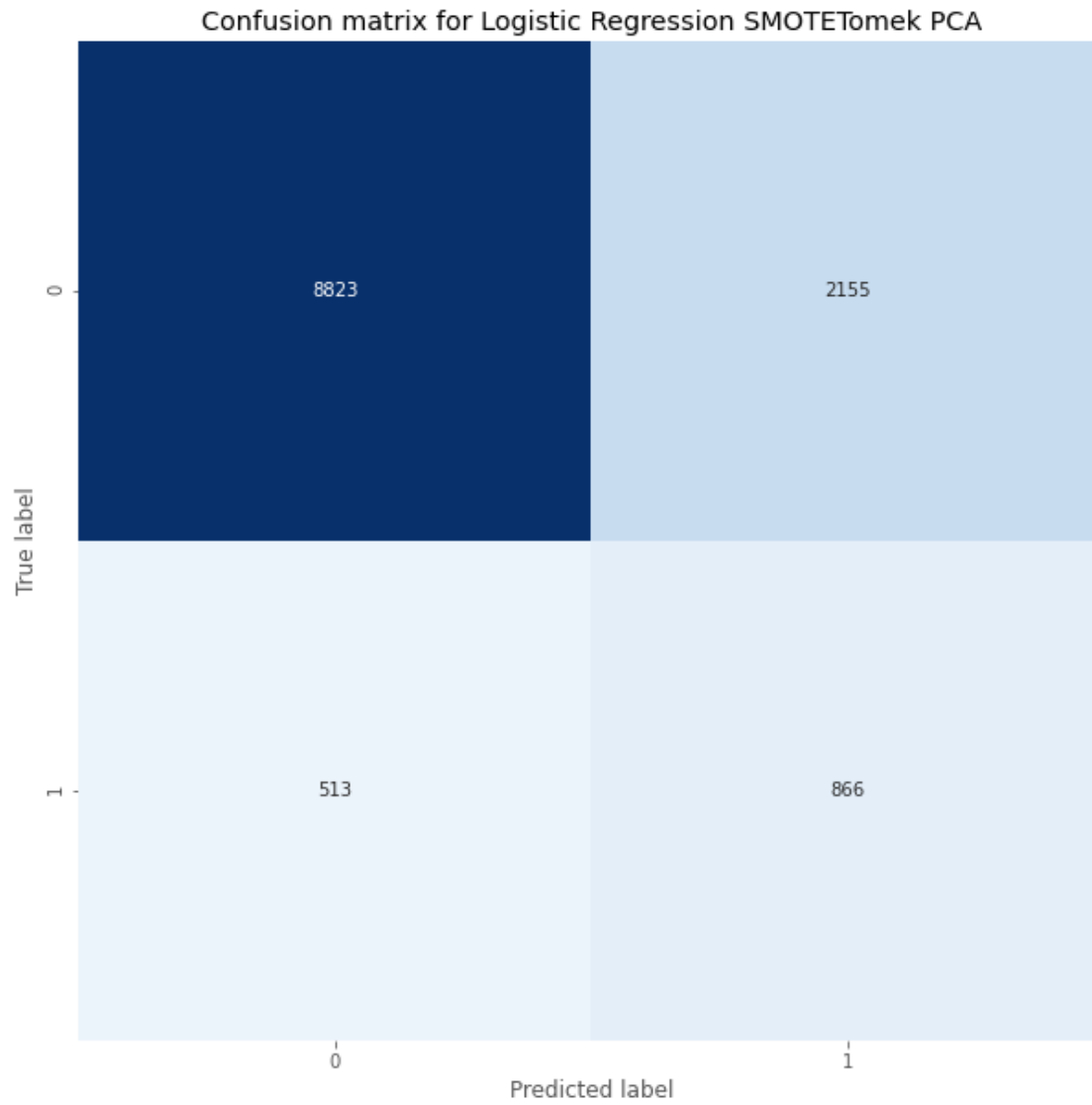
Results for Logistic Regression TomekLinks:
Logistic Regression TomekLinks accuracy: 0.8948
Logistic Regression TomekLinks f-score: 0.3428
Logistic Regression TomekLinks recall: 0.2458
Logistic Regression TomekLinks log_loss: 0.286



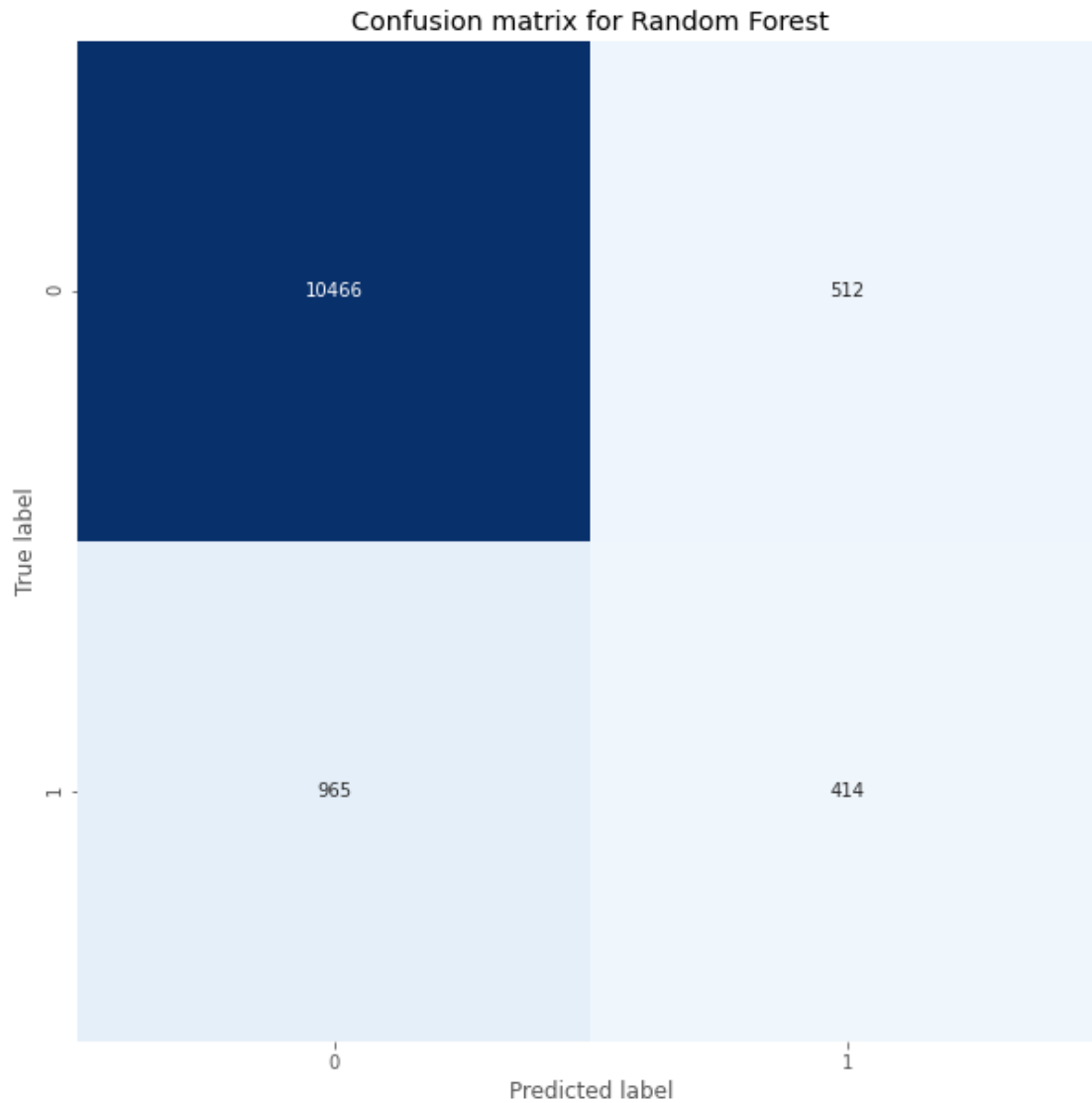
Results for Logistic Regression SMOTETomek:
Logistic Regression SMOTETomek accuracy: 0.8107
Logistic Regression SMOTETomek f-score: 0.4192
Logistic Regression SMOTETomek recall: 0.612
Logistic Regression SMOTETomek log_loss: 0.53



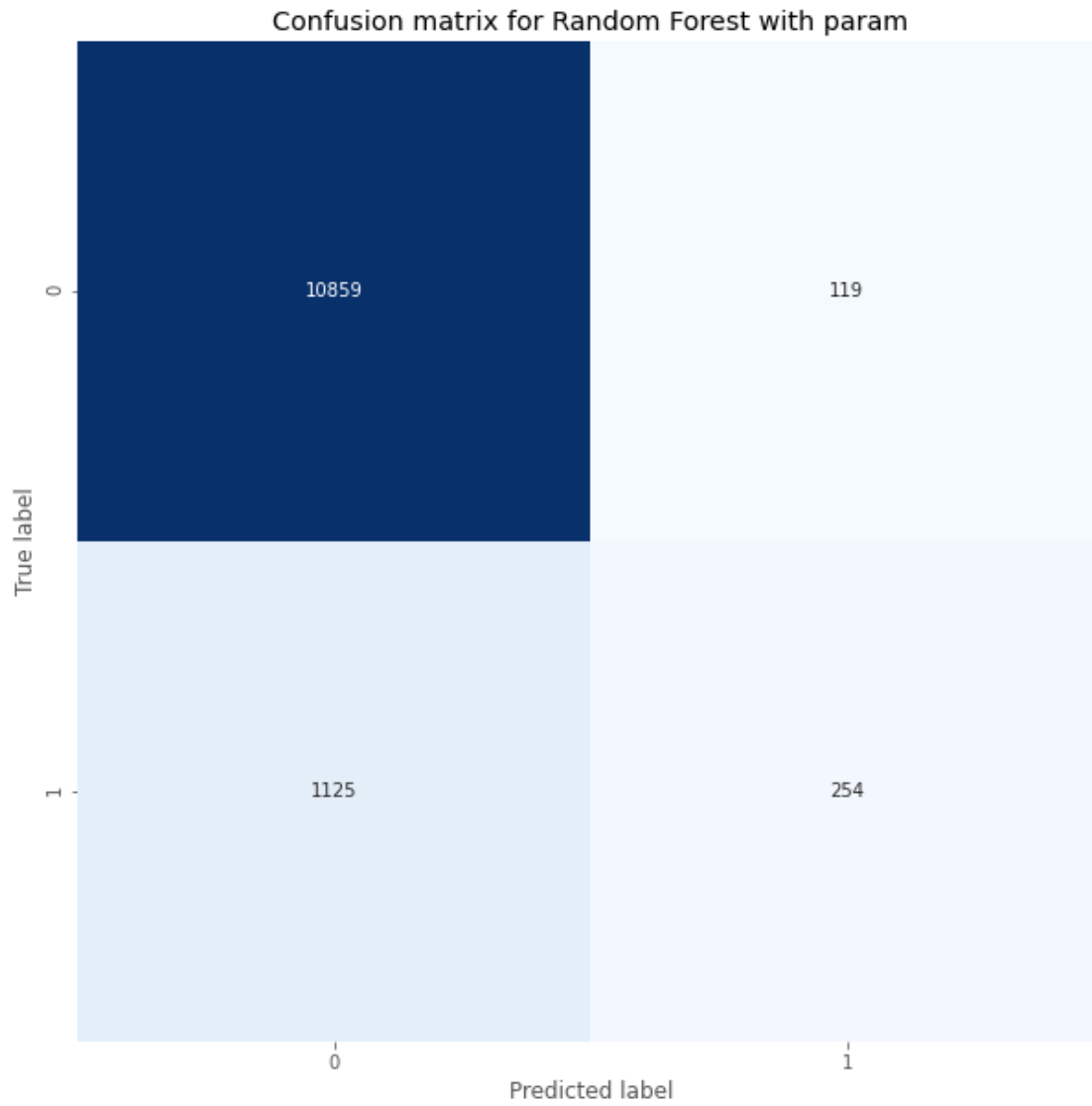
Results for Logistic Regression SMOTETomek PCA:
Logistic Regression SMOTETomek PCA accuracy: 0.7841
Logistic Regression SMOTETomek PCA f-score: 0.3936
Logistic Regression SMOTETomek PCA recall: 0.628
Logistic Regression SMOTETomek PCA log_loss: 0.5618



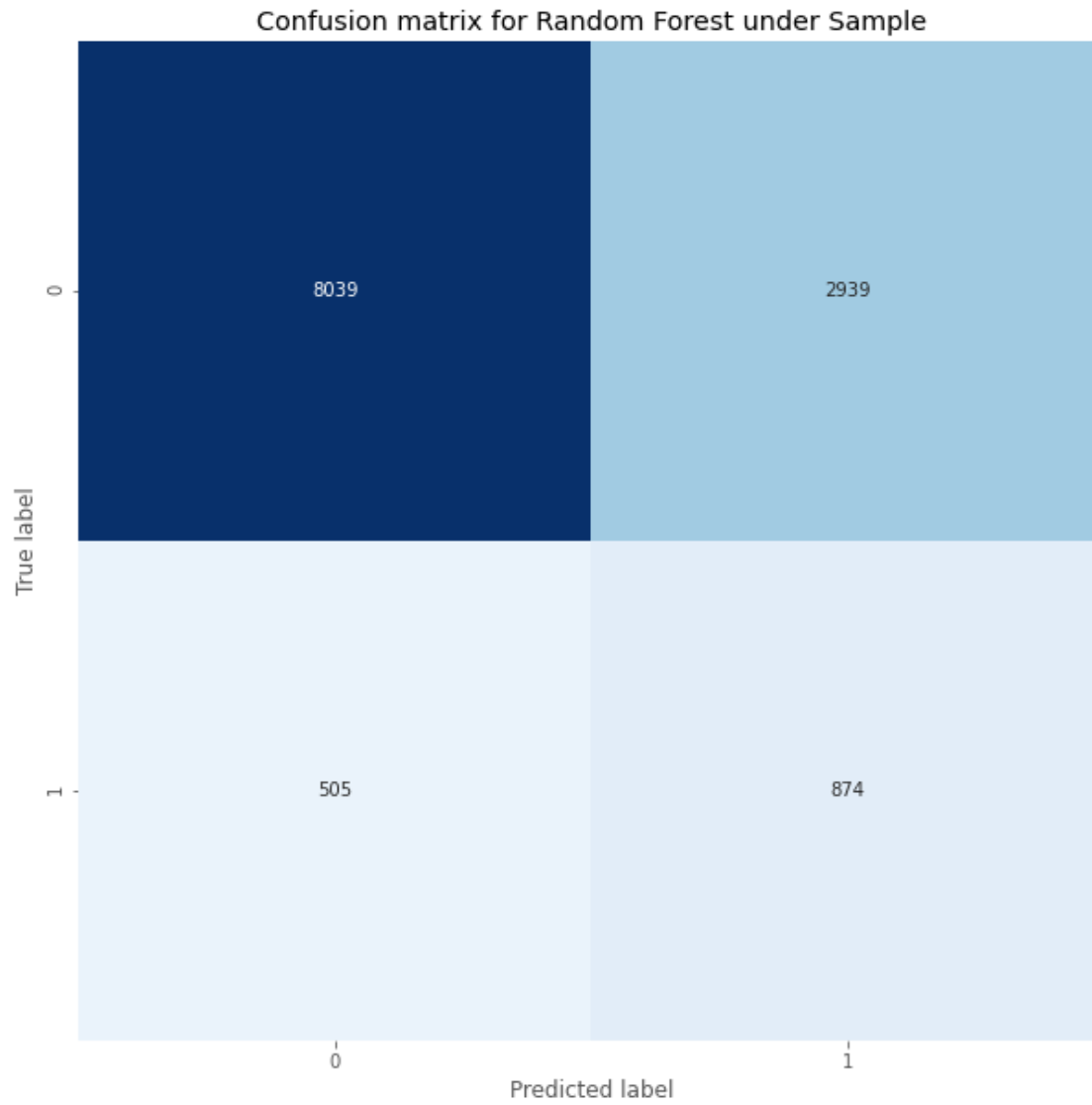
Results for Random Forest:
Random Forest accuracy: 0.8805
Random Forest f-score: 0.3592
Random Forest recall: 0.3002
Random Forest log_loss: 1.0429



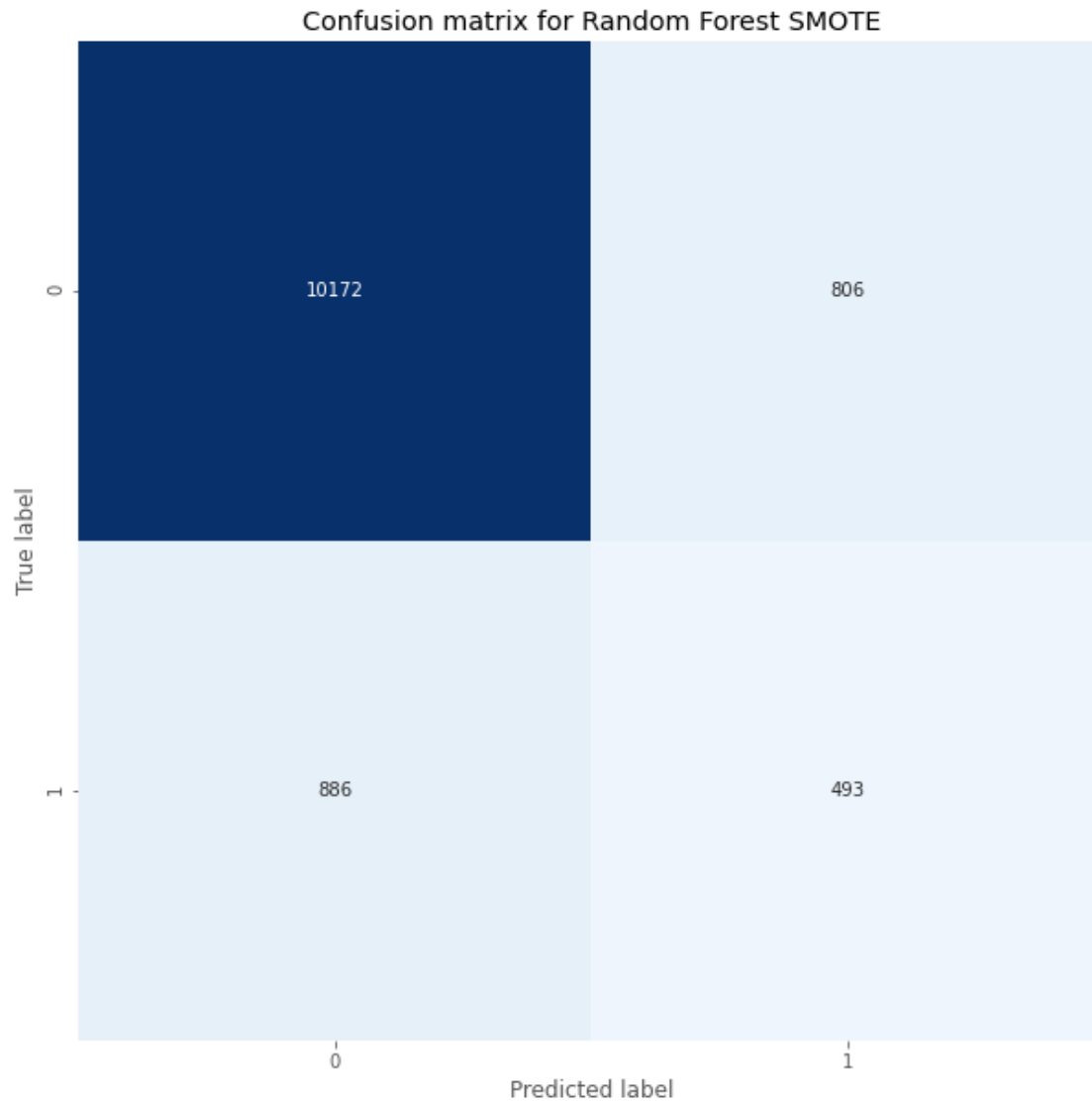
Results for Random Forest with param:
Random Forest with param accuracy: 0.8993
Random Forest with param f-score: 0.29
Random Forest with param recall: 0.1842
Random Forest with param log_loss: 0.2796



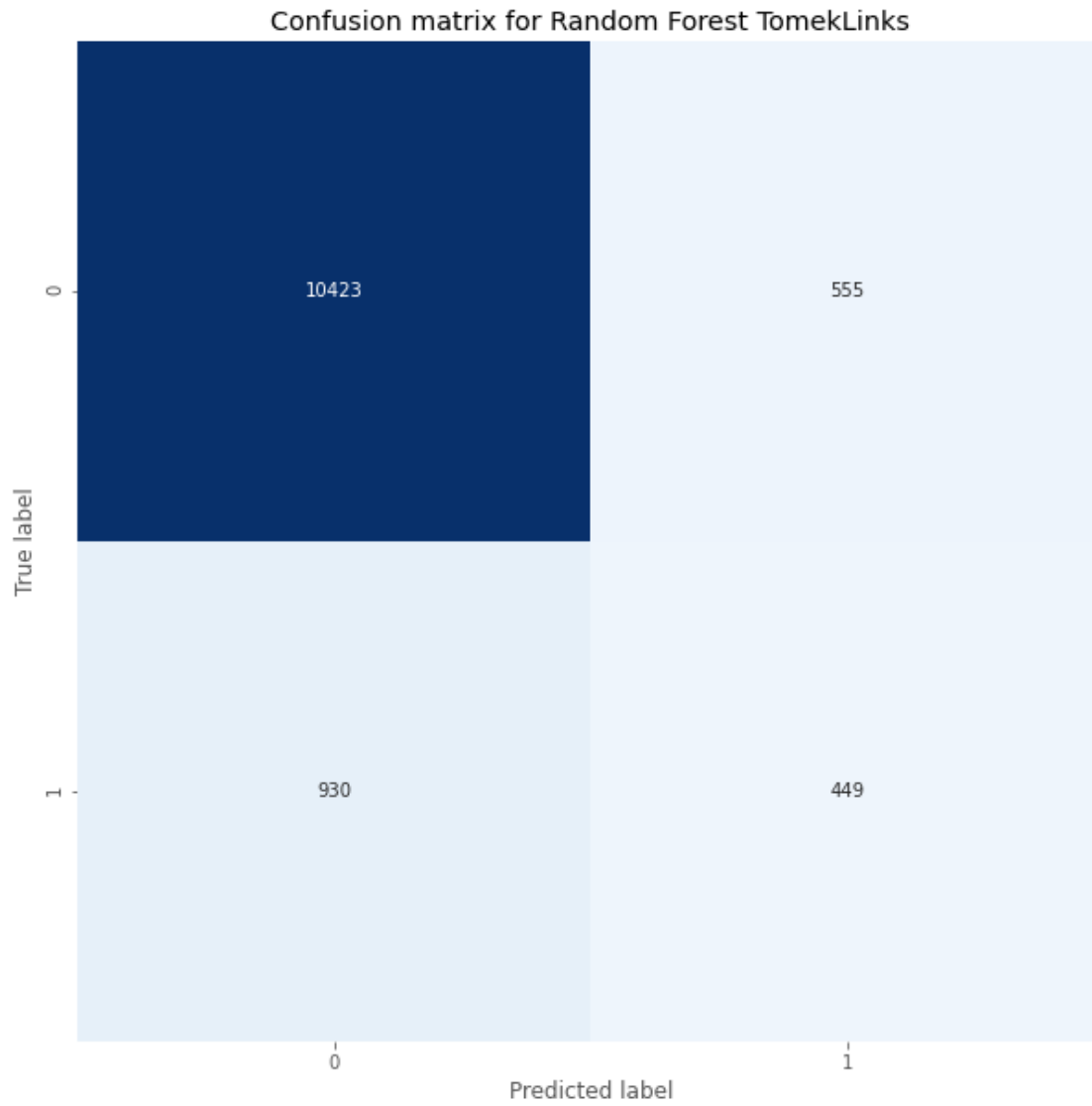
Results for Random Forest under Sample:
Random Forest under Sample accuracy: 0.7213
Random Forest under Sample f-score: 0.3367
Random Forest under Sample recall: 0.6338
Random Forest under Sample log_loss: 1.9856



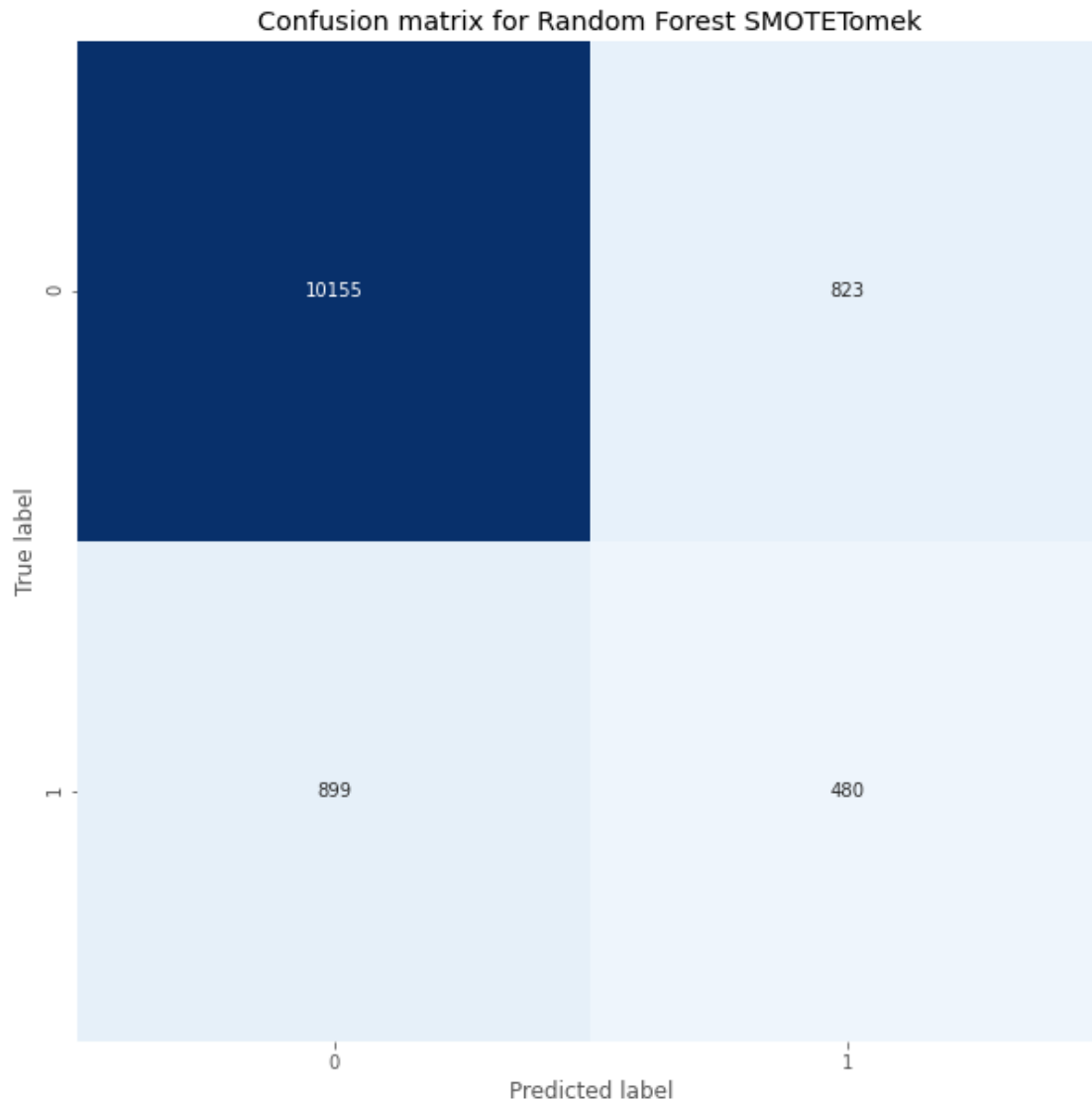
Results for Random Forest SMOTE:
Random Forest SMOTE accuracy: 0.8631
Random Forest SMOTE f-score: 0.3682
Random Forest SMOTE recall: 0.3575
Random Forest SMOTE log_loss: 1.6816



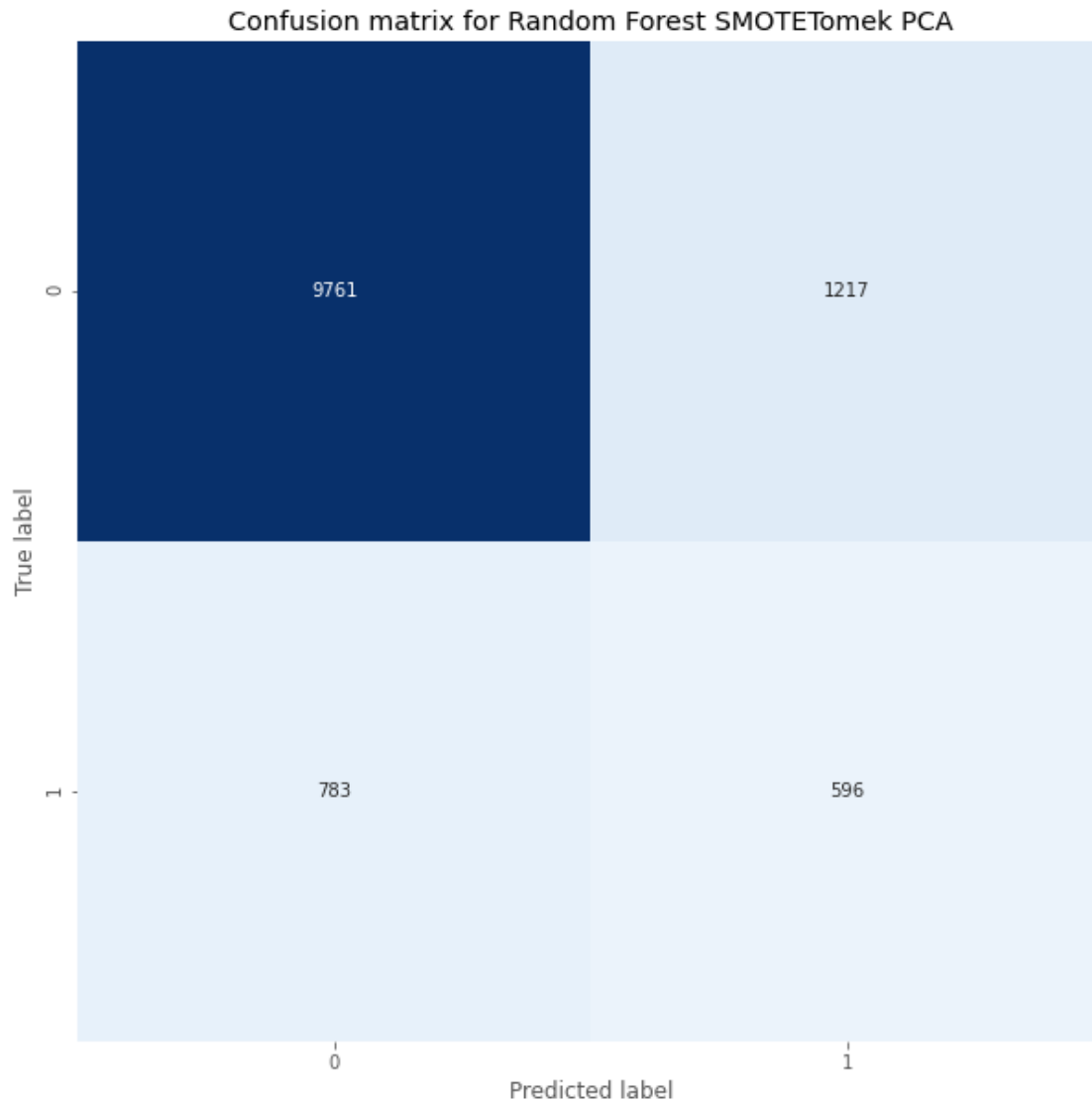
Results for Random Forest TomekLinks:
Random Forest TomekLinks accuracy: 0.8798
Random Forest TomekLinks f-score: 0.3768
Random Forest TomekLinks recall: 0.3256
Random Forest TomekLinks log_loss: 1.5544



Results for Random Forest SMOTETomek:
Random Forest SMOTETomek accuracy: 0.8606
Random Forest SMOTETomek f-score: 0.3579
Random Forest SMOTETomek recall: 0.3481
Random Forest SMOTETomek log_loss: 1.6868

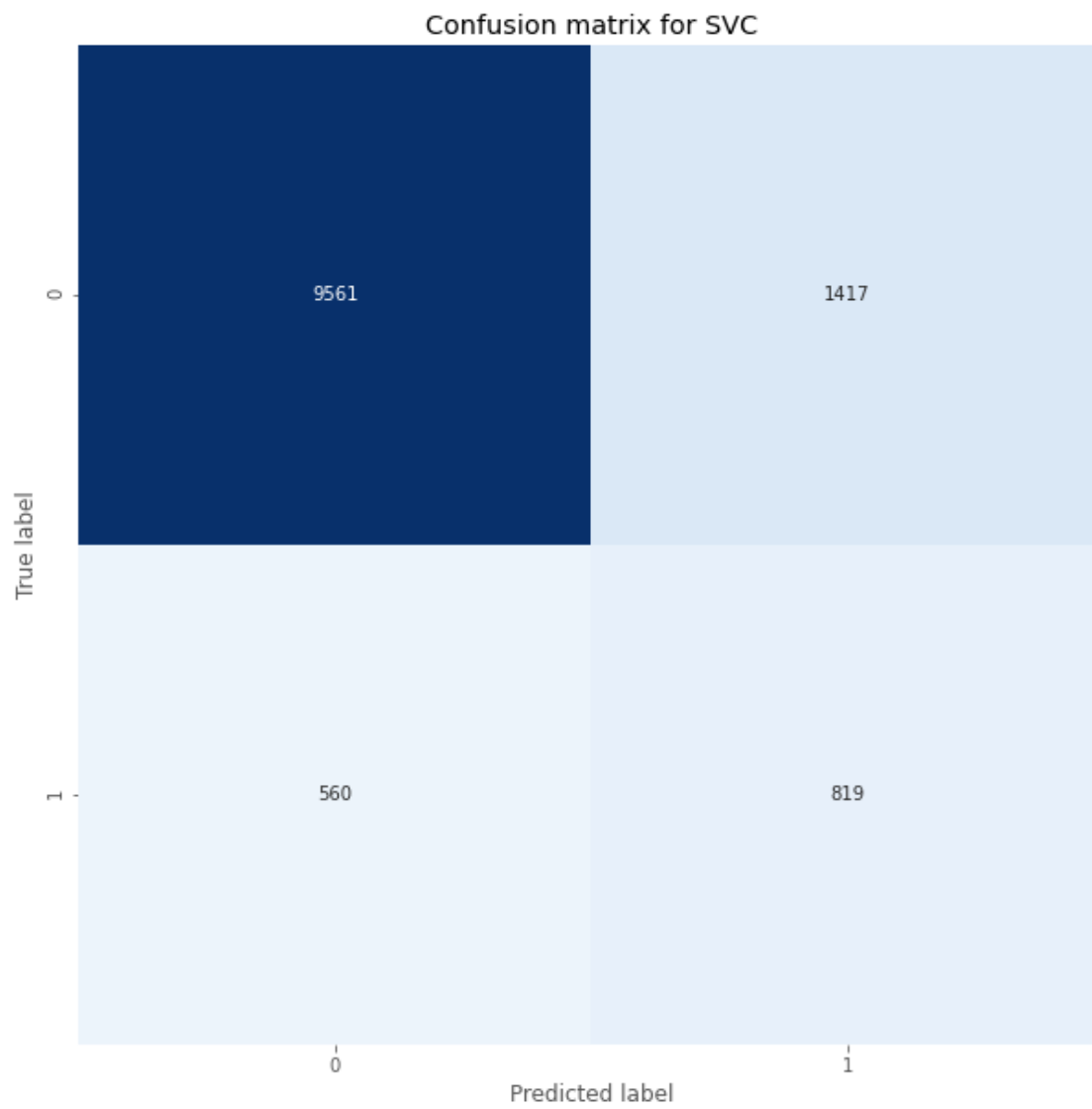


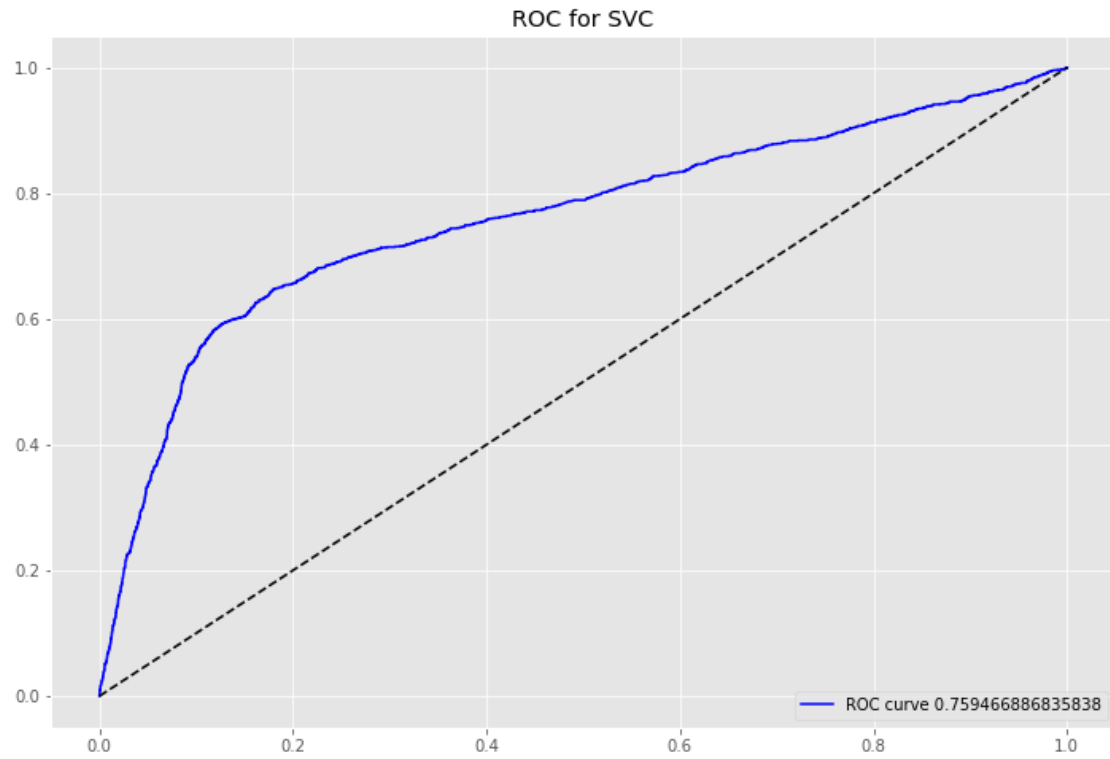
Results for Random Forest SMOTETomek PCA:
Random Forest SMOTETomek PCA accuracy: 0.8381
Random Forest SMOTETomek PCA f-score: 0.3734
Random Forest SMOTETomek PCA recall: 0.4322
Random Forest SMOTETomek PCA log_loss: 1.8546



Results for SVC:
SVC accuracy: 0.84
SVC f-score: 0.4531
SVC recall: 0.5939
SVC log_loss: 0.2892

[134]: <matplotlib.legend.Legend at 0x5765b80>





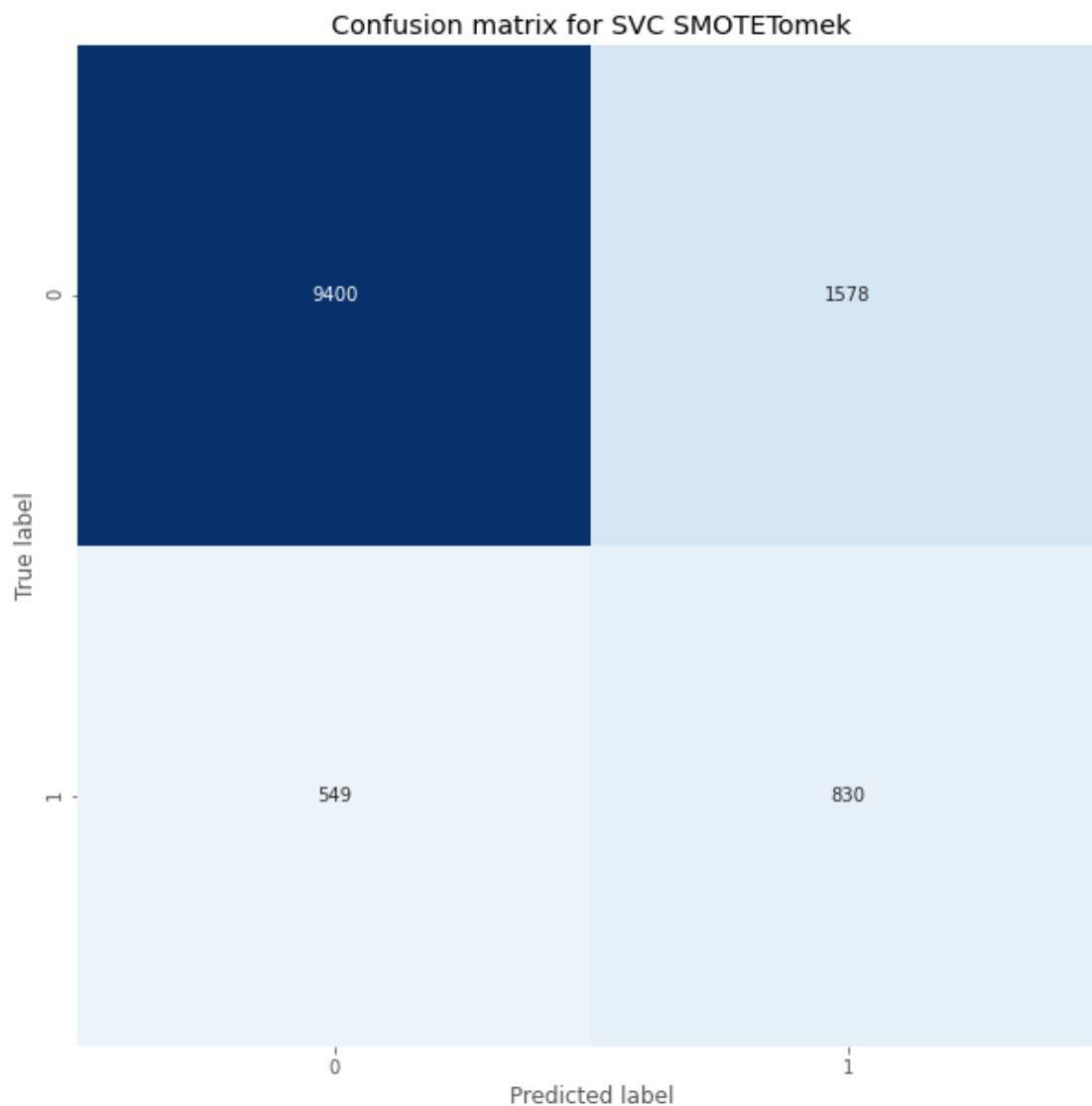
Results for SVC SMOTETomek:

SVC SMOTETomek accuracy: 0.8279

SVC SMOTETomek f-score: 0.4383

SVC SMOTETomek recall: 0.6019

SVC SMOTETomek log_loss: 0.5165



[136]: Classifier	Accuracy	F-score	Recall	Log_loss
SVC	0.8400	0.4531	0.5939	0.2892
SVC SMOTETomek	0.8279	0.4383	0.6019	0.5165
Logistic Regression SMOTETomek	0.8107	0.4192	0.6120	0.5300
Logistic Regression under Sample	0.8104	0.4185	0.6113	0.5306
Logistic Regression SMOTE	0.8101	0.4181	0.6113	0.5293
Logistic Regression SMOTETomek PCA	0.7841	0.3936	0.6280	0.5618
Random Forest TomekLinks	0.8798	0.3768	0.3256	1.5544
Random Forest SMOTETomek PCA	0.8381	0.3734	0.4322	1.8546
Random Forest SMOTE	0.8631	0.3682	0.3575	1.6816
Random Forest	0.8805	0.3592	0.3002	1.0429
Random Forest SMOTETomek	0.8606	0.3579	0.3481	1.6868

Logistic Regression TomekLinks	0.8948	0.3428	0.2458	0.2860
Random Forest under Sample	0.7213	0.3367	0.6338	1.9856
Logistic Regression	0.8954	0.2798	0.1820	0.2855