**Credit Risk Analysis**

**Balanced Accuracy Score**

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Description automatically generated**

The balanced accuracy score is about 0.66.

**Imbalanced Classification**A screenshot of a cell phone

Description automatically generated

In the imbalanced classification report, the high risk scored a 0.01 for precision, 0.67 for recall and a 0.02 for F1. The F1 score is low because there is a great difference between the recall and the precision. However, for the low risk, it shows that there is a 1.0 for the precision which means that there is not false negative. The recall for the for the low risk is 0.65 and the F1 score is 0.78.

**SMOTE Oversampling**

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Description automatically generated

For the SMOTE oversampling report the high risk received a precision score of 0.01, a recall score of 0.59 and an F1 score of 0.02. For the low risk score, the precision is 1.00, recall is 0.65 and the F1 score is 0.59.

**Undersampling**

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Description automatically generated

For the undersampling report, the high risk received a precision score of 0.1, a recall score of 0.55 and an F1 score of 0.01. For the low risk, it received a precision score of 0.99, a recall of 0.43 and an F1 score of 0.55.

**Oversampling and Undersampling**

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Description automatically generated

For the oversampling and the undersampling classification report, the high risk received a precision score of 0.1, a recall of 0.72 and an F1 score of 0.02. For the low risk, it received a score of 1.00 in precision, a 0.57 and 0.72 for F1.

**Summary of Classification reports and Recommendations**

After seeing the results, I would like to create a Receiver Operating Characteristic (ROC) Curve.

The ROC will help identify how the recall and the precision relate to one another. This test will help identify the quality of the performance of the tests because it will compare recall to precision.