


Predicting Good and Bad Loans



Motivation

- Help bankers have a statistical measure of when they should and should not give a loan
 - Financial wellness of potential borrowers by the loan status of other similar profiles

Data

75 Variables → 56 Variables (includes dummy variables)

750 Good Loans

64 Bad Loans

~1 Bad Loan /10 Good Loan

Classifying Loans

Good Loan

- Fully Paid
- Current

90%

Bad Loan

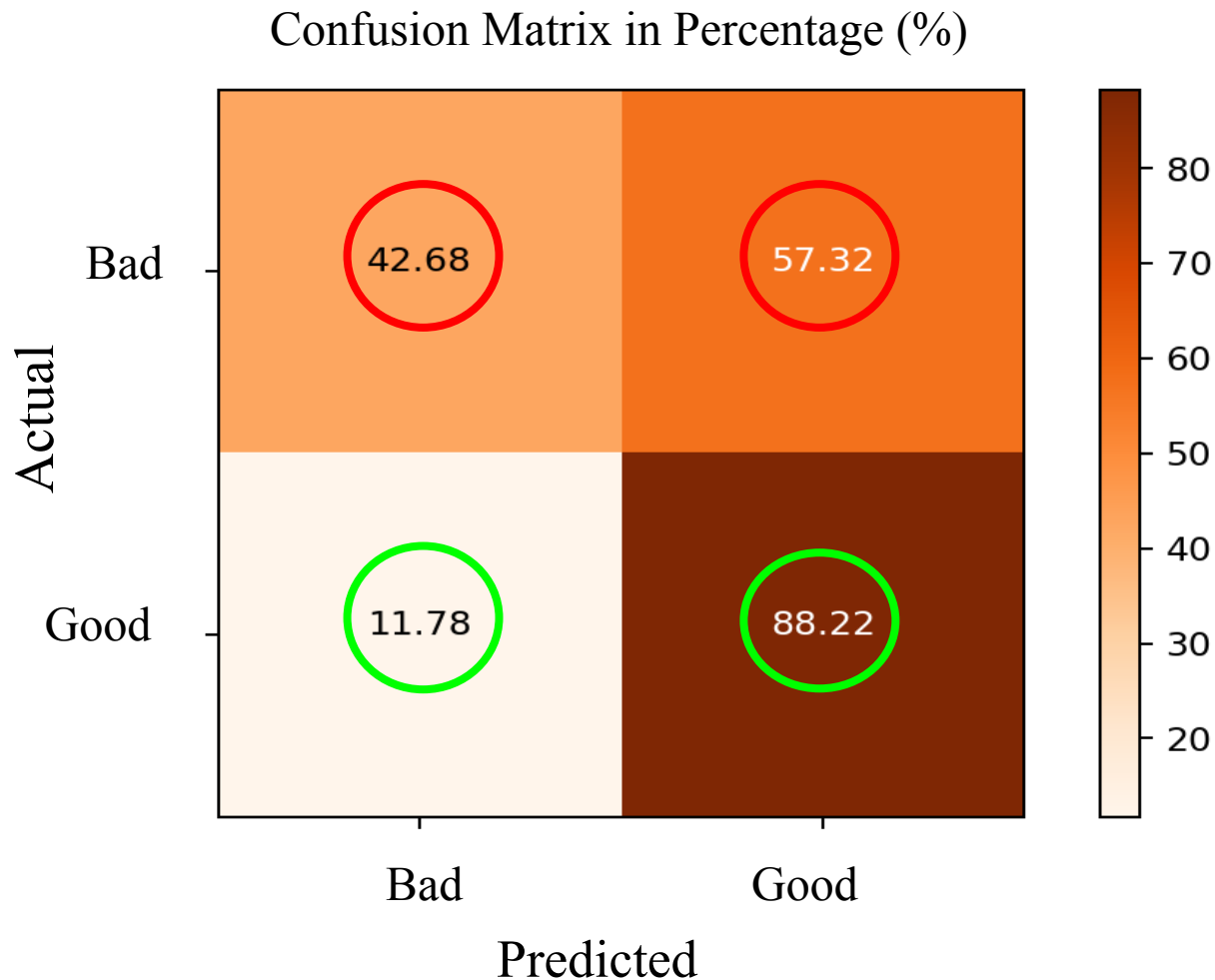
- Grace Period
- Late (16-30 days)
- Late (31-120 days)
- Default
- Charged Off

10%

Results

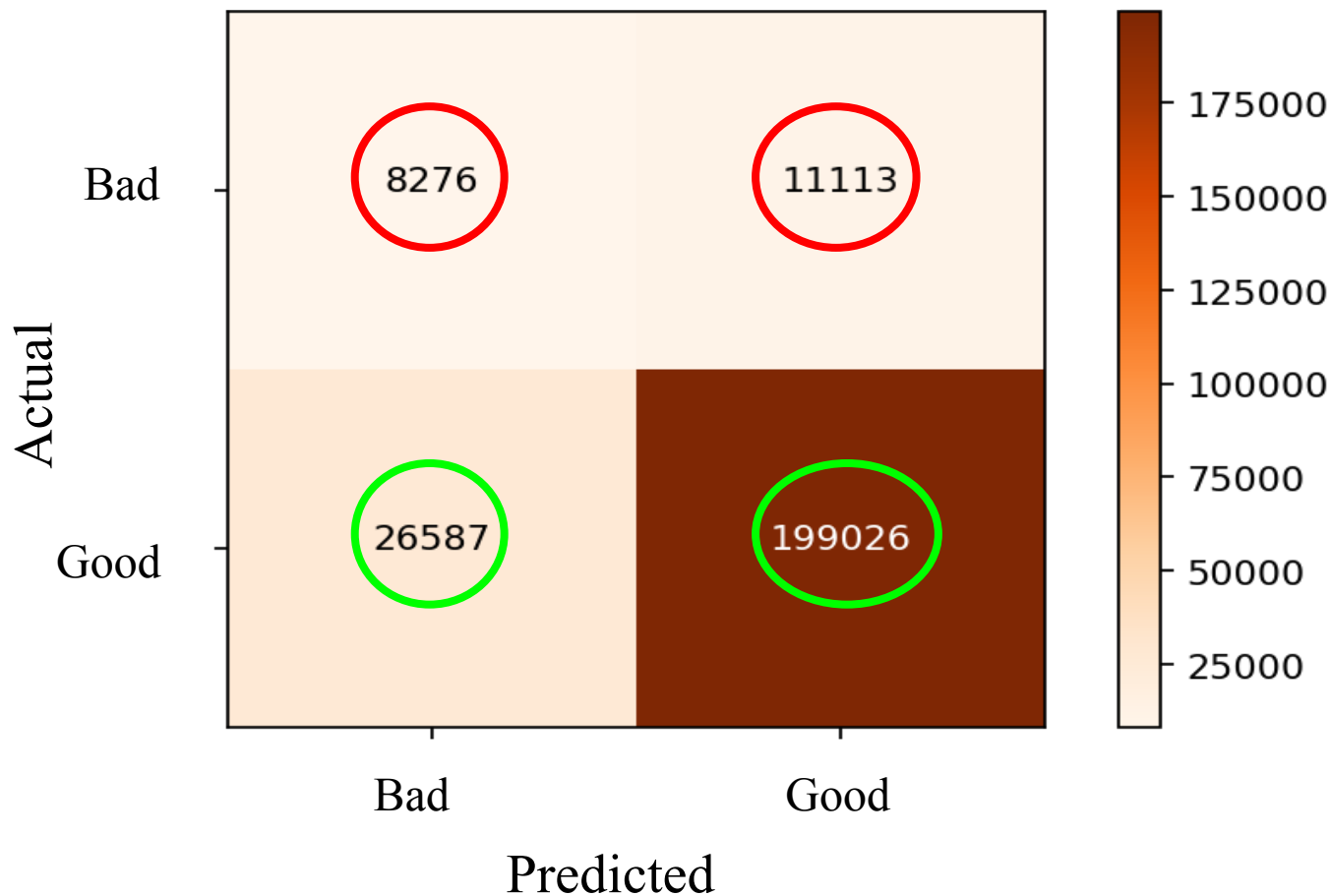
Accuracy	84.6%
F1	91.4%
Precision	94.7%
Recall	88.2%

Model



Model

Confusion Matrix in Percentage



De
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Improvement

- Consideration of adding in State
- Exploring the model with Grace Period as a “Good Loan”
- Continue improving the model through grid search and tuning hyperparameters



Thank you!

