

Credit Risk Evaluation



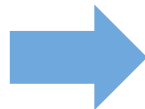
Irene Liu
2018.08.08

Credit Risk

The risk that a lender may not receive the owed principal and interest, which results in an interruption of cash flows and increased costs for collection.

43%

Americans who have
been carrying a
credit card balance
for 2+ years.



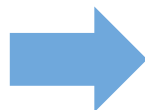
PLAN
74%

NO PLAN
26%



\$16,883

How much the average
household with credit card
debt owes



How much the average
household with credit card
debt pays in interest each
year



\$1,292

Credit Risk Management Process



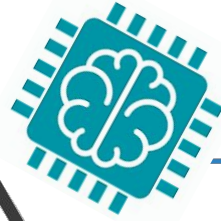
Know-Your-Customer

1



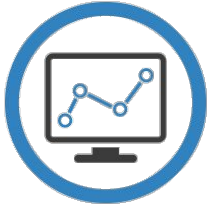
Analyze non-financial risks

2



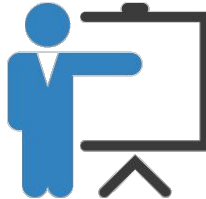
Understand the numbers

3



Monitor the business relationship

6



Present and close the deal

5

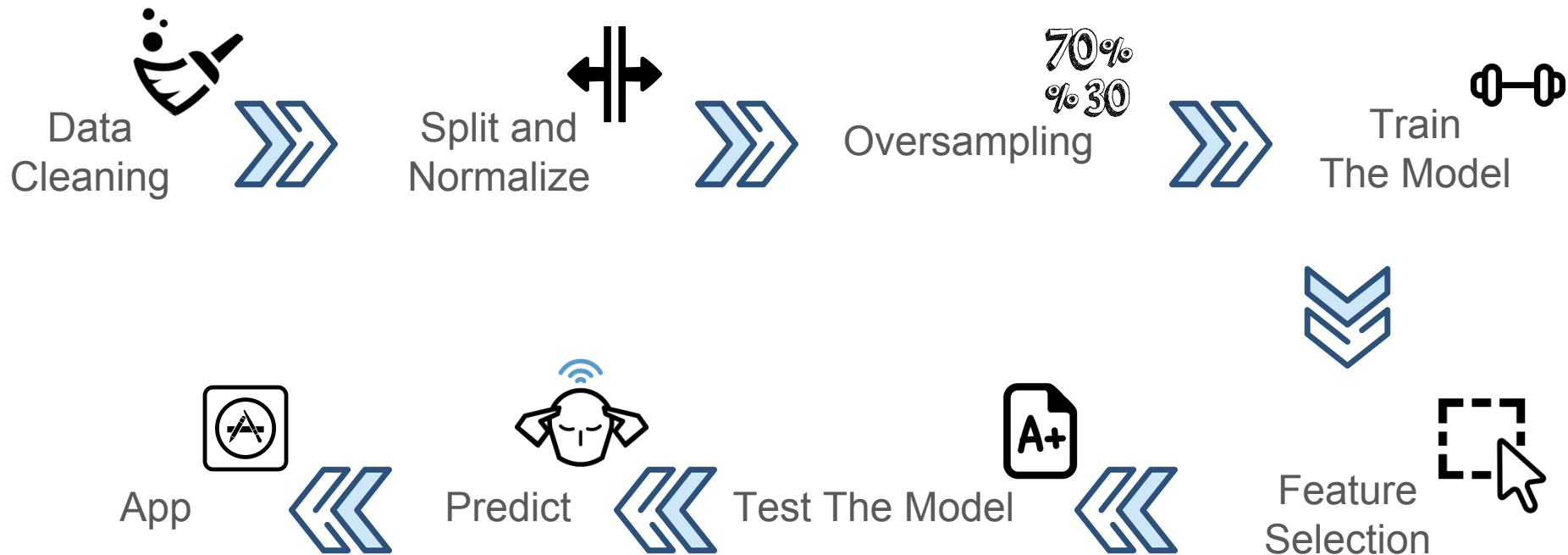


Calculate the price

4

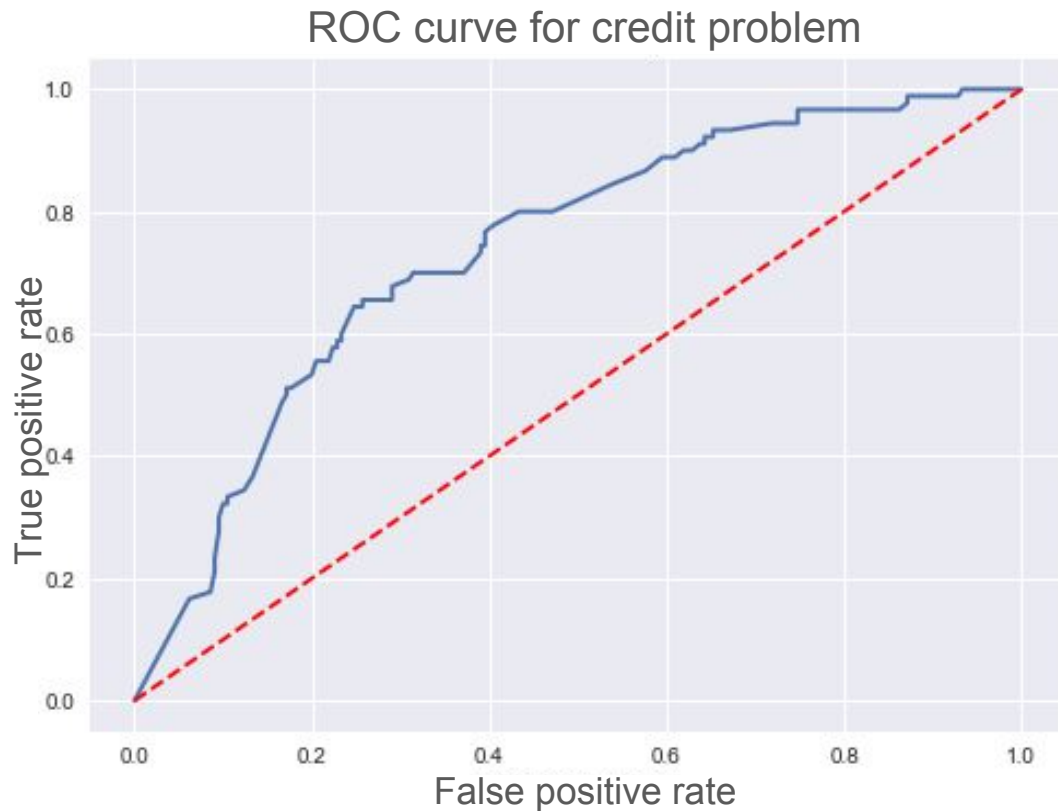


My Approach

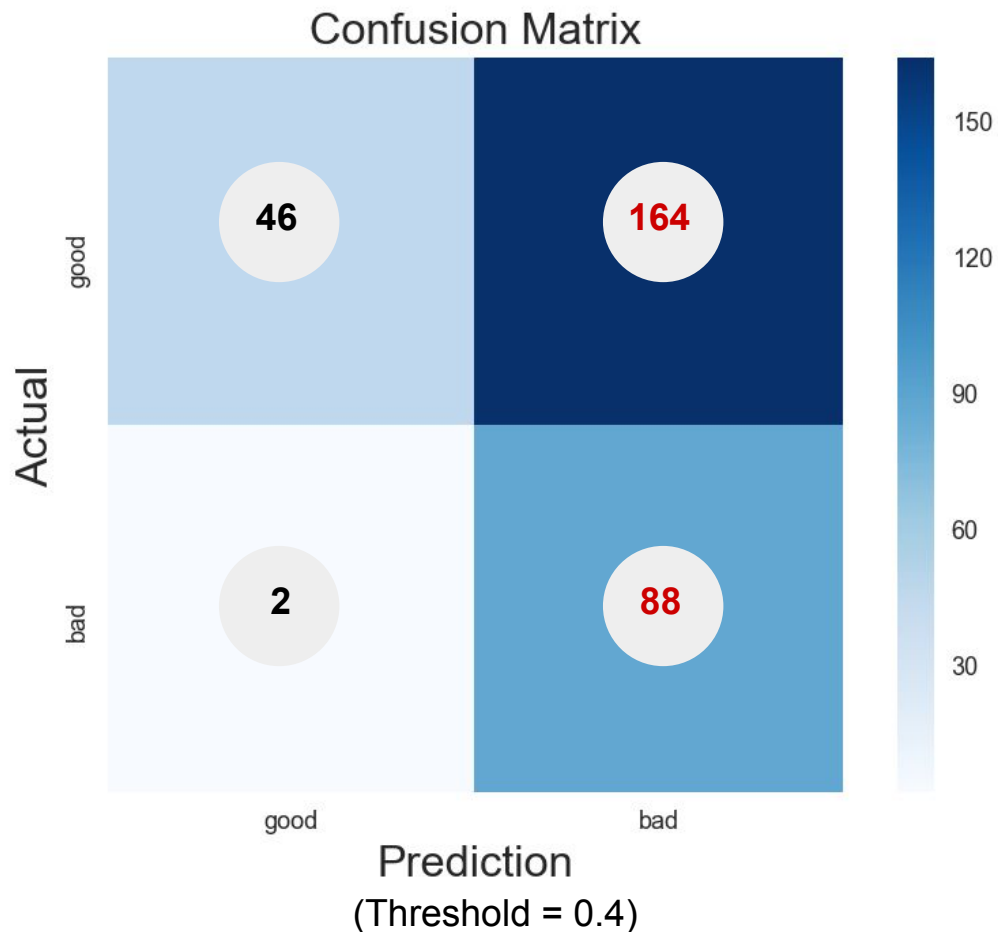
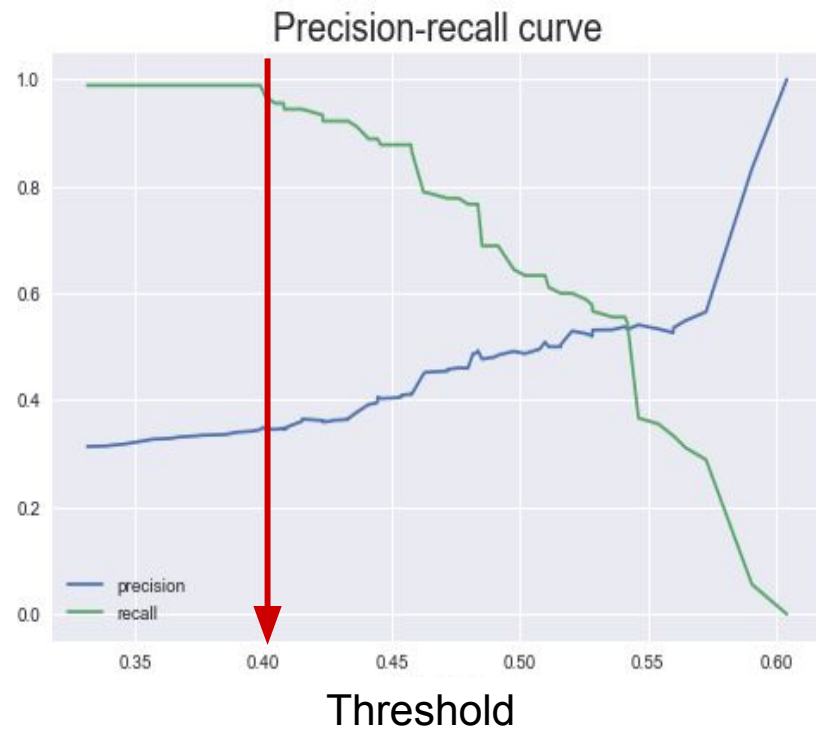


Model Performance

- Random Forest
- Accuracy score: 69%
- ROC AUC score: 0.73
- **Recall score: 64%**

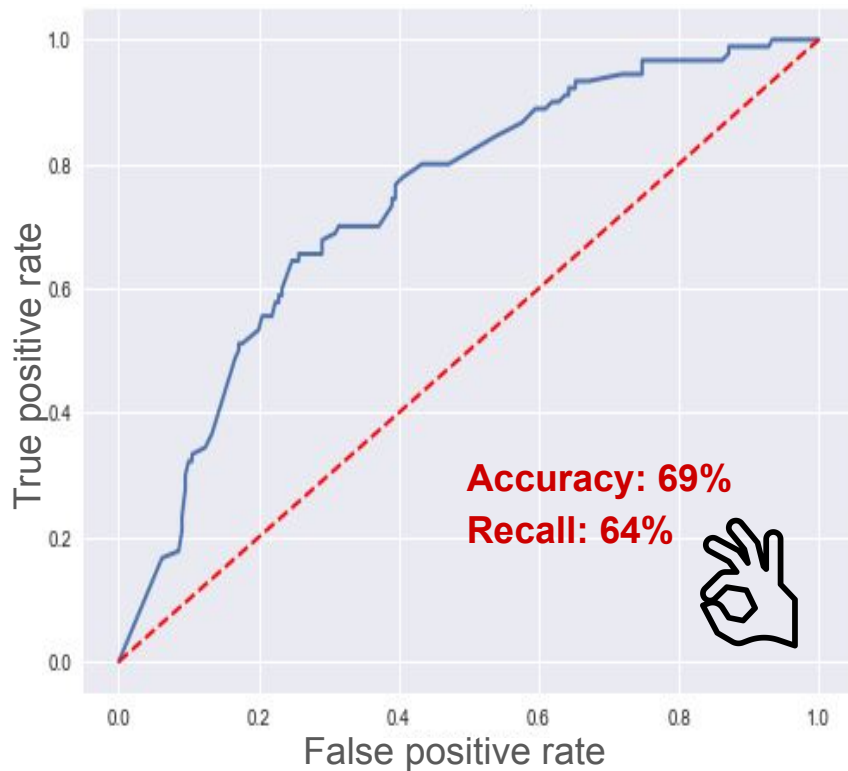


Model Performance

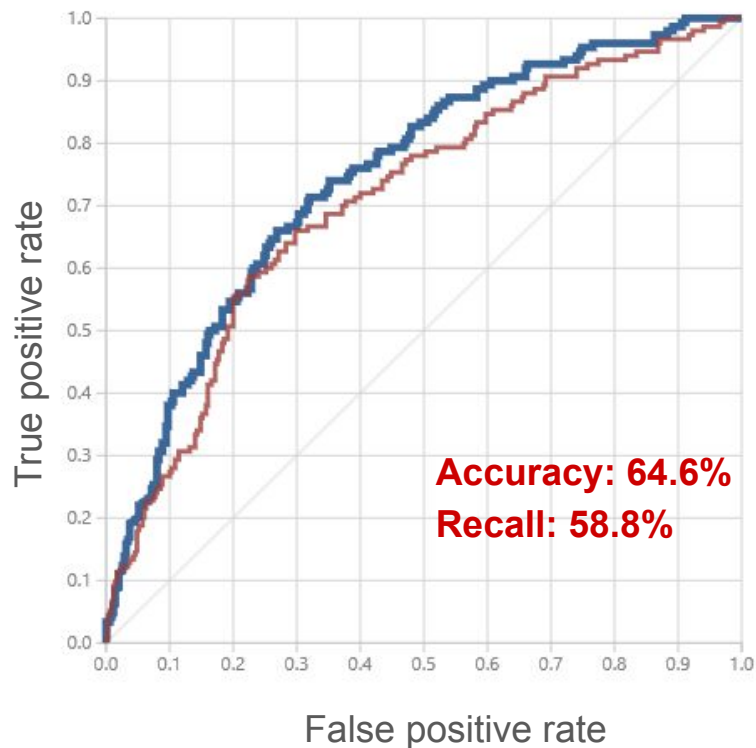


Compare with Microsoft Azure

ROC curve for credit problem



ROC curve for credit problem



The background is a dark blue field filled with numerous translucent, glowing blue cubes of various sizes. These cubes are arranged in a seemingly random, overlapping pattern, creating a sense of depth and three-dimensional space. Within the faces of these cubes, as well as scattered across the background, are faint, white lines of text that resemble computer code or data logs. Some of the visible text includes terms like "System", "Error", "Warning", "Info", and "Debug", along with various symbols and numbers, giving the overall image a high-tech, digital, and futuristic aesthetic.

The Credit Evaluation App

Future Improvement

- More data
- User friendly app
- Utilize industry insight to
select features



[illegible]

References

- <https://www.lendingtree.com/finance/resolutions-and-goals-2018/>
- <https://blog.actico.com/en/the-six-elements-of-credit-risk-management/>
- <https://docs.microsoft.com/en-us/azure/machine-learning/studio/walkthrough-4-train-and-evaluate-models>
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