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# Customer Loan Prediction

Flatiron School

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# PROJECT OBJECTIVE

WHAT ARE WE TRYING TO ACHIEVE?

The objective of the project was to predict the likelihood of a customer obtaining a loan from UBC, on the basis the customer is invited to apply for a loan.



## Business Understanding

Building a predictive model like this improves the rate at which banks can offer loans to customers and reduces the overheads from reaching external customers and other attentive ventures.



## Data Understanding

The data for this project was obtained utilising the Bank Loan Modelling and California Housing from Kaggle.

Data was cleaned and formatted appropriately  
Additional columns were created for further exploration



## Modelling

Logistic Regression - Random Forest Classifier  
- Decision Trees Classifier

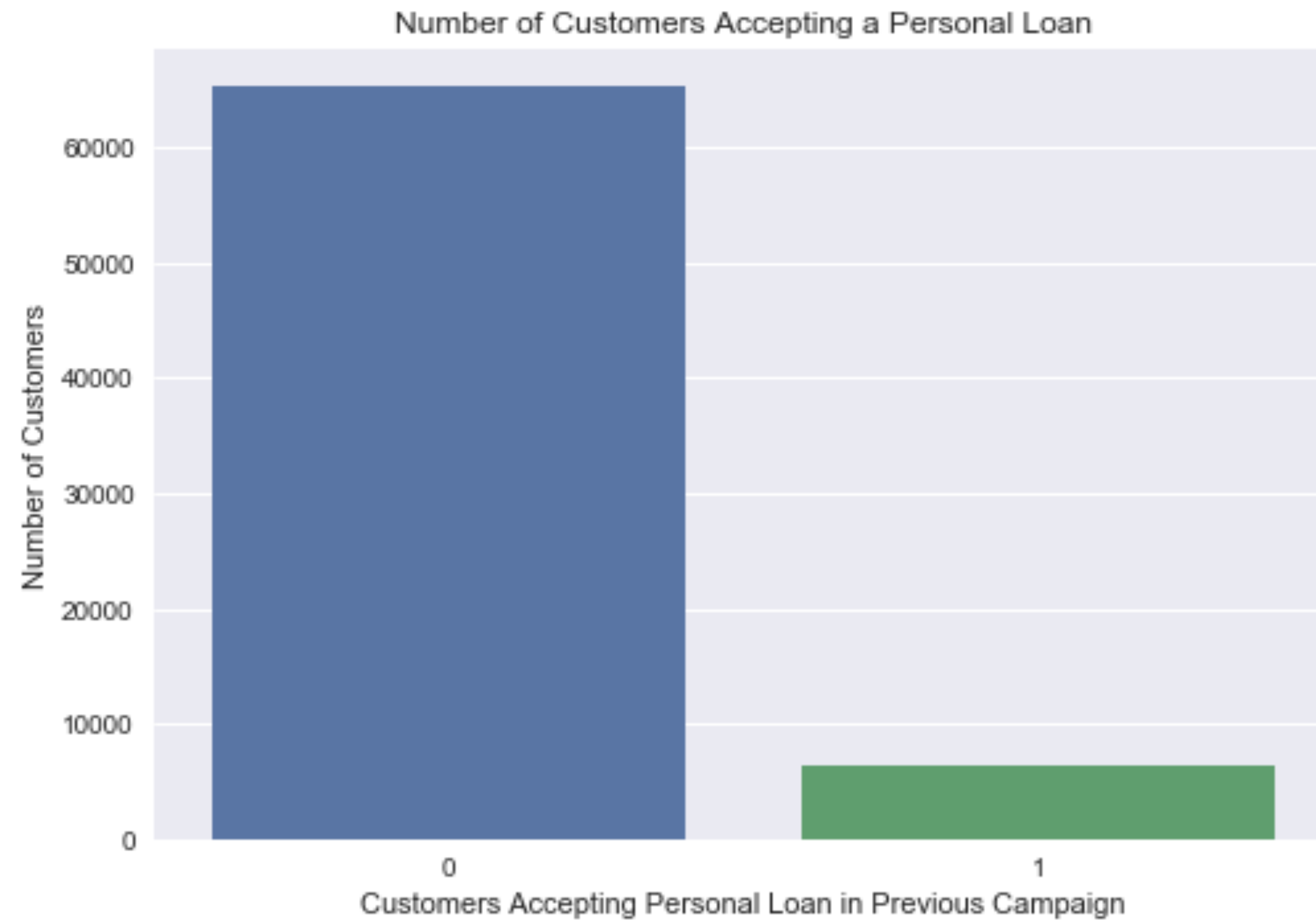


## Evaluation

Analysing the metrics of the best performing model

# FINDINGS

Exploratory Data Analysis

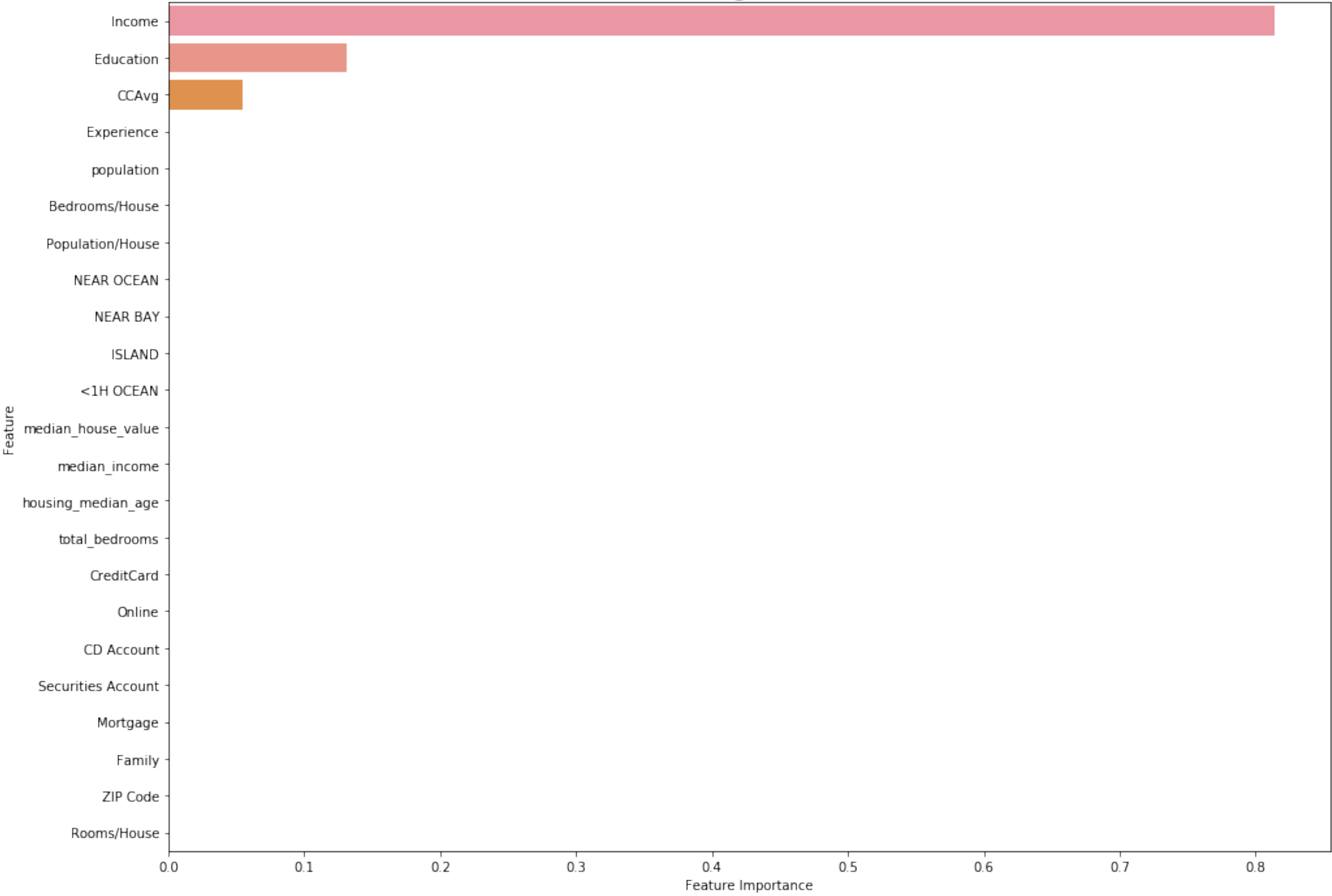


Loan Acceptance Rate

# Impactive Features

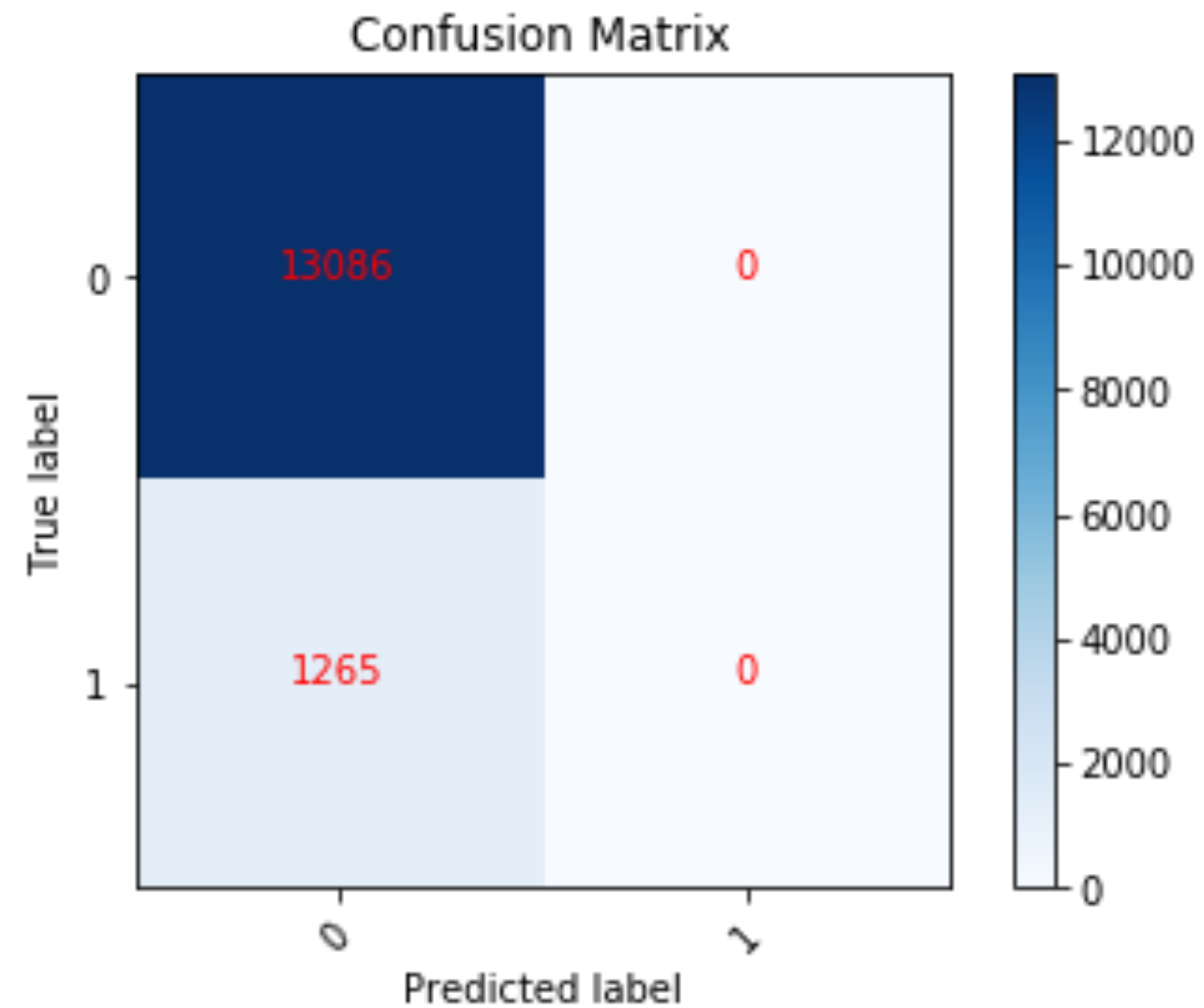
Universal Banking Corporation

Feature Ranking in Decision Tree



# Potential Savings

Universal Banking Corporation



- £253,000 is what UBC would in customer attrition based on all our False Negative value of 1265

# Actionable Problem Solving Recommendations

What can Universal Banking Corporation do to improve  
their efficiency with customer relationships?

## Further Loan Products

Mortgages, Personal Loan,  
Credit Cards

Solution 1

## Reduced Interest Rates

Offer customers likely to decline  
loan a better offer

Solution 2

## Analyse Customer Spending Habits

Banking products should be tailored  
to customers specifically

Solution 3

## Improved Digital Banking

Reducing costs on billboards  
and TV and focusing on  
reducing fraud to bring in new  
clients

Solution 4