Fraud Detection Modeling

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Agenda

01 Exploratory Data Analysis

Descriptive Statistics and key numbers

02 Modeling Results

Feature importance and error metrics

03 Visualizations

Confusion matrix, ROC curve

04 Future Work

Methods for improving

Fraud detection and efficiency

368,092,000,000

Credit Card transactions globally in 2018

Key numbers in the Data

284,807

Transactions

492

Fraudulent Transactions

0.17%

Percent Fraudulent

Best Model: **Random Forest**

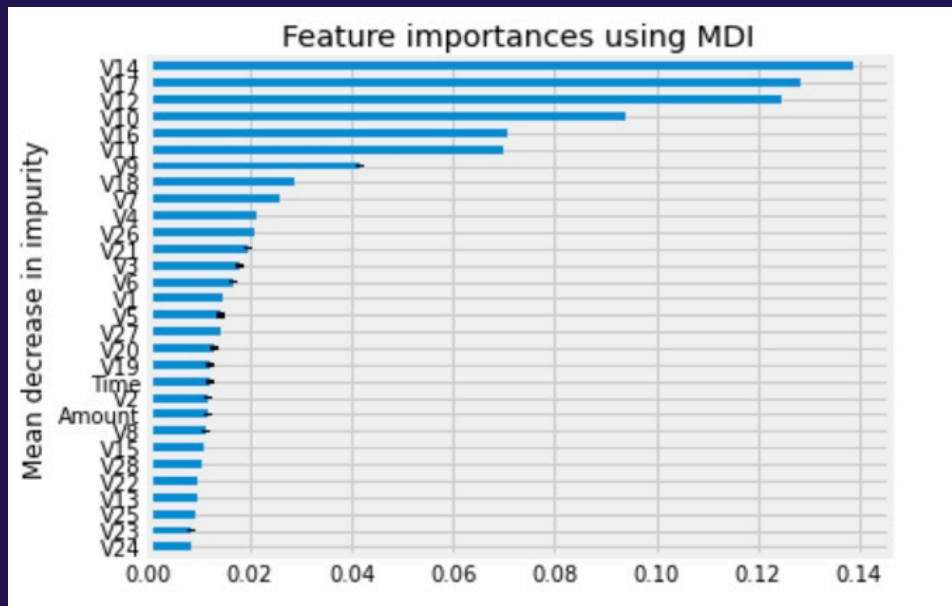| 0.83	0.97	0.78
F1 Score (target)	Precision	Recall

Feature Importance

Feature importances using MDI
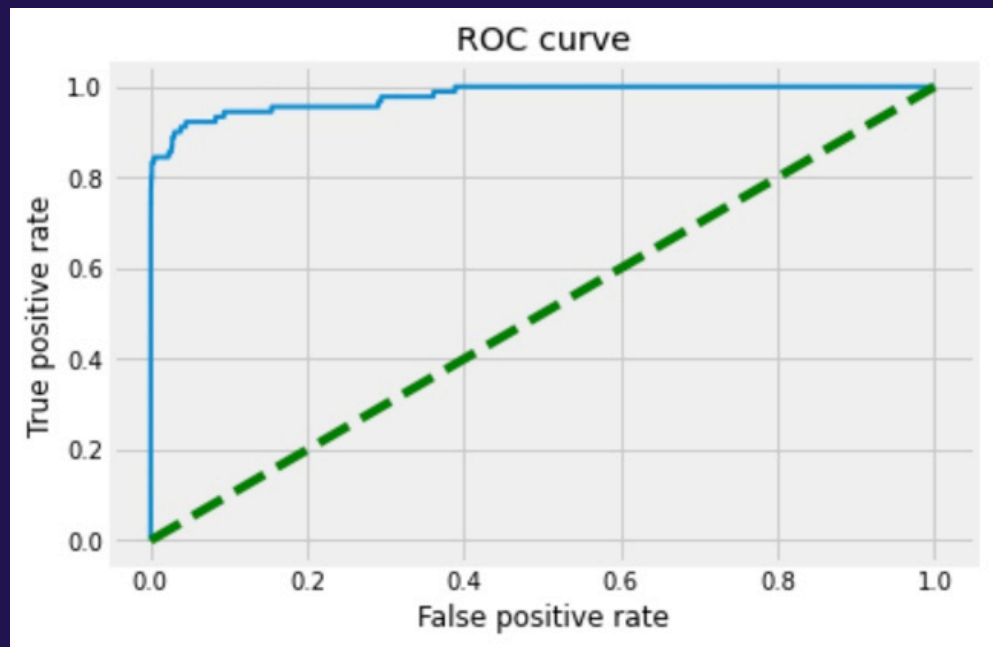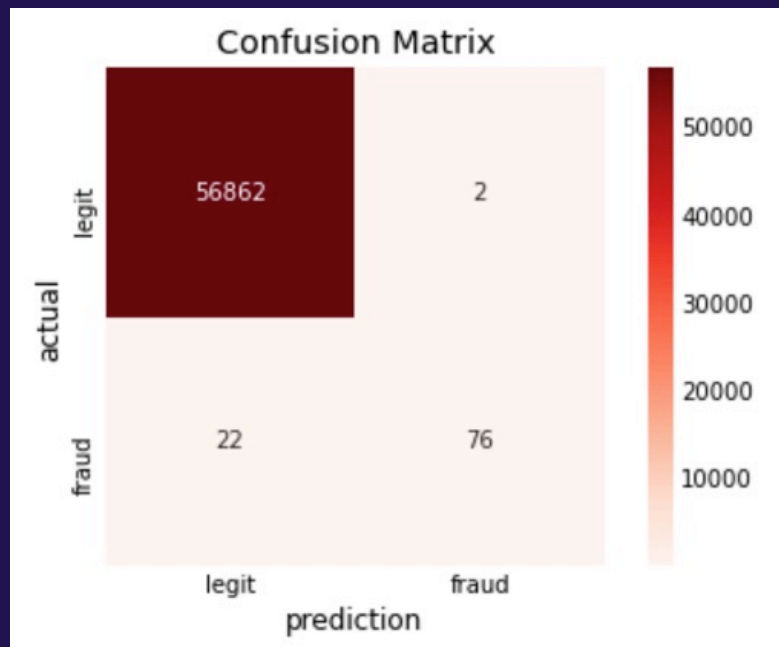
A handful of features appear to stand out.

The scale of the x-axis indicates That no features were crucial.

Visual Results

Future Steps

Step 1

The client should clearly define what they want.

Step 2

The client should communicate what they want.

Step 3

The Data Scientist can now attack the problem more efficiently.

Step 4

Client's balance sheet improves due to improved insights.

Thanks

Do you have any questions?

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