

Credit Card Defaults

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Question

Given payment history and biographical data, will an individual default on their next credit card payment?

Binary Classification {0, 1}:

- 1 -> Default
- 0 -> No Default

Dataset

- 30,000 Rows x 24 Columns
- Feature Adjustment:
 - 'Age' Binning by Decade
 - One-Hot Encoding for Categorical Variables
 - Drop Unnecessary Columns
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ML Techniques (High to Low Bias)

- Logistic Regression
- Support Vector Machines
- Decision Trees
- AdaBoost
- Random Forest
- EasyEnsemble

(Need to add justifications from ipynb)

Hyperparameter Tuning

- GridSearch

Prediction Pipeline Implementation

- Pre-Processing
 - StandardScaler()
 - OneHotEncoding()
- Train/Test Split
 - train_test_split()
 - Do we need to do KFold Cross-Validation?
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Evaluation Strategies

- Precision
- Recall
- F-1 Score

Metric Visualizations

- Confusion Matrices

Model Interpretations/Final Thoughts