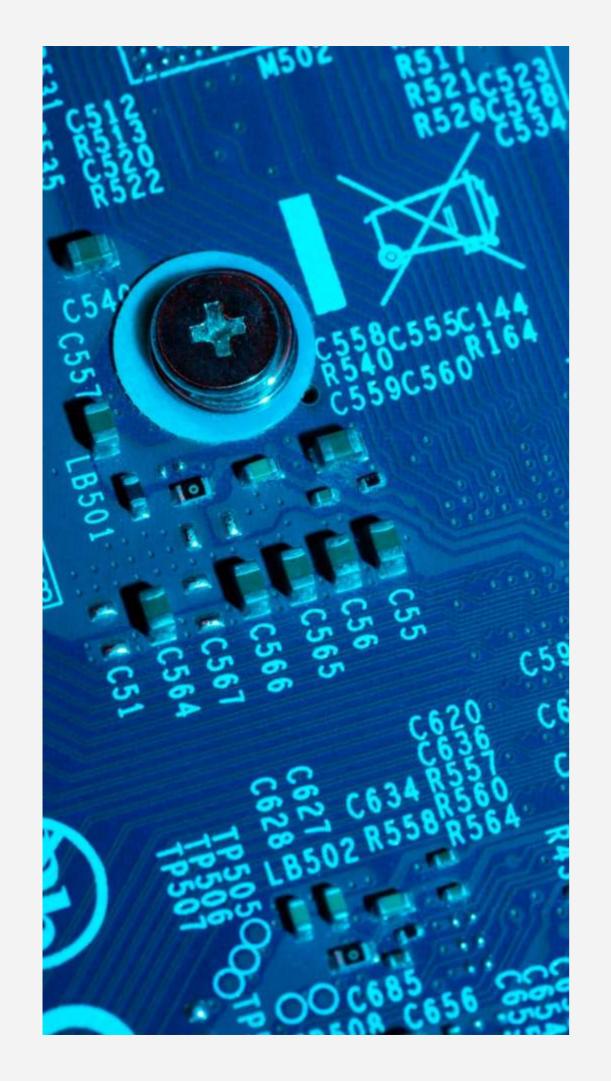
# Credit Card Approval using Machine Learning

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## Introduction to Credit Card Approval using ML

Credit card approval using Machine Learning (ML) automates the process of evaluating applicants based on their financial history, income, employment status, and other factors.

ML models analyze historical data to predict whether an applicant is likely to default, enabling faster, more accurate, and fairer decisions.

#### Technologies used

Language: Python

Frameworks/Libraries: Scikit-learn, Pandas,

NumPy, Matplotlib, Seaborn

Dataset: Datasets from Kaggle

Machine Learning Models: Logistic Regression,

Decision Trees, Random Forest, Gradient

Boosting, and XGBoost

Tools: Jupyter Notebook, Google Colab,

**PyCharm** 



#### Benefits of Credit Card Approval using ML

Automation: Speeds up the approval process.

**Accuracy**: Identifies complex patterns for better predictions.

**Scalability**: Handles large volumes of applications.

Fairness: Reduces bias in decision-making.

#### Challenges

#### **Imbalanced Data**:

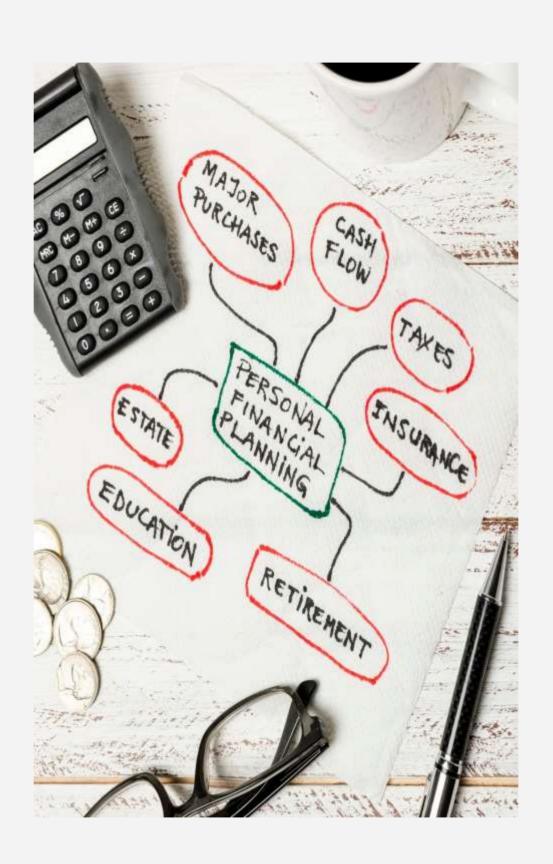
More approvals than rejections (use SMOTE).

Bias: Ensure fairness

in predictions.

#### Interpretability:

Explain why applications are approved/rejected.

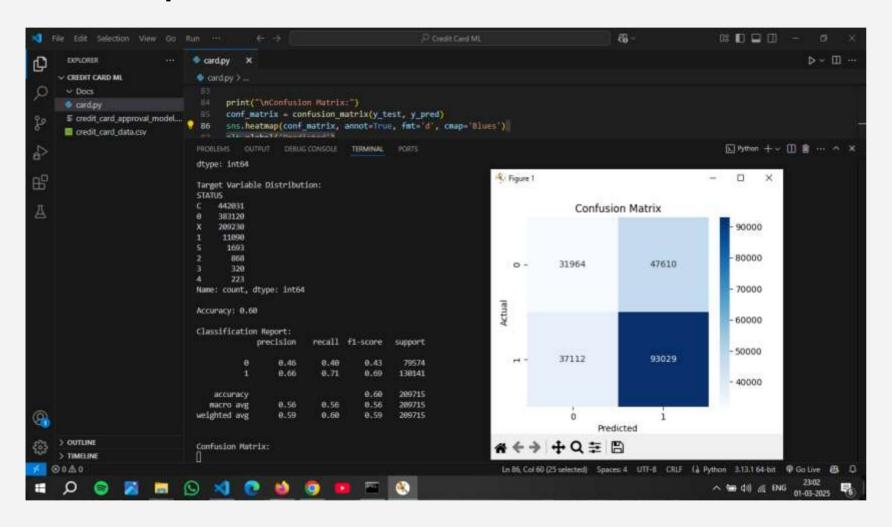


#### **Applications**

Banks, **Fintech** companies, Credit scoring agencies use ML for faster, Smarter credit card approval

#### Output

#### Graph View on VS Code



#### Datasets on Jupyter Notebook

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              Missing Values:
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              Target Variable Distribution:
              C 442031
                 383120
                 289238
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                   223
             Accuracy: 0.60
             Classification Report:
                         precision recall fI-score support
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```

### Thanks.



