

Data Science Course: Capstone Project 1 - Proposal

Predicting Credit Card Default

Problem Statement:

Delinquency rate on credit card debt for all commercial banks in U.S. was 2.54% in 2018. If banks can correctly predict which customer is going to default, then banks can take preventive measures (like reducing the credit limit, closing the account or proactively reaching out to the consumer for financial advice, etc.,) to reduce the number of defaults.

Target Audience:

All commercial banks, that issue credit cards, are potential users of this solution.

Data:

The data is available at <https://www.kaggle.com/uciml/default-of-credit-card-clients-dataset>. This data is collection of customer data in a Taiwan bank. The data is donated by the Department of Information Management, Chung Hua University, Taiwan.

Solution Approach:

1. Analyze the data and apply data wrangling as required
2. Split the data into training and validation data
3. Apply various prediction models to understand which model predicts the possibility of default accurately
4. Use the correct prediction model (determined using above step) to predict if the consumer is going to default on credit card debt
5. Determine which variables are the strongest predictors of default

Deliverables:

Code, ML model and slide deck.