

Predicting Credit Card Approvals

Project Proposal



Supervisor

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Main Subject Area/s:	Machine Learning, Data Visualization, Data Manipulation, Importing and Cleaning Data, Applied Finance.
Brief Project Description inc. References:	<p>Commercial banks receive a lot of applications for credit cards. Many of them get rejected for many reasons, like high loan balances, low income levels, or too many inquiries on an individual's credit report, for example. Manually analyzing these applications is mundane, error-prone, and time-consuming (and time is money!). Luckily, this task can be automated with the power of machine learning and pretty much every commercial bank does so nowadays. In this project, we will build an automatic credit card approval predictor using machine learning techniques.</p> <p>Ref: The dataset used in this project is the Credit Card Approval dataset from the UCI Machine Learning Repository.</p>
Objective:	Building Machine Learning model to predict if a credit card will get approved.
Resources Required:	Personal Computer Dataset from UCI Machine Learning Repository
Recommended Prerequisites / Knowledge Required:	This research builds upon material from the following study units: <ul style="list-style-type: none"> • Supervised learning with scikit-learn • Data manipulation with Pandas
Technology:	Python
Project Tasks:	<ol style="list-style-type: none"> 1. Credit card applications 2. Inspecting the applications 3. Handling the missing values 4. Preprocessing the data 5. Splitting the dataset into train and test sets 6. Fitting a logistic regression model to the train set 7. Making predictions and evaluating performance 8. Grid searching and making the model perform better 9. Finding the best performing model