

LOAN APPROVAL PREDICTION

Abstract

Loan approval prediction has emerged as a critical area of research and development within the financial sector, driven by the increasing reliance on data-driven decision-making processes. This project endeavours to harness the power of predictive analytics and machine learning to enhance the efficiency and accuracy of loan approval assessments. By leveraging historical loan data, applicant information, and relevant financial indicators, we aim to construct a robust predictive model capable of gauging the likelihood of loan approval.

Traditional methods of assessing creditworthiness often involve manual scrutiny of extensive documentation, leading to time inefficiencies and potential human errors. In contrast, our approach involves the utilization of advanced algorithms to analyse large datasets, extracting patterns and insights that contribute to a more informed and automated decision-making process.

The project's significance lies in its potential to transform the loan approval landscape, making it more responsive to the dynamic financial environment. The predictive model developed in this study aims to provide financial institutions with a tool that not only expedites loan approval decisions but also ensures fairness and consistency in the lending process. This research contributes to the ongoing discourse on responsible lending practices, emphasizing the importance of utilizing data-driven methodologies to create a more inclusive and adaptive financial ecosystem. Now-a-days obtaining loans from banks have become a very common phenomenon. The banks gain profits from the loans lent to their customers in the form of interest. While approving a loan, the banks should consider many factors such as credit history and score, reputation of the person, the location of the property and the relationship with the bank. Many people apply for loans in the name of home loan, car loan and many more. Everyone cannot be approved based on above mentioned conditions.

KEYWORDS: Machine Learning, Web Application, Bank, Algorithms, Random Forest, Decision Tree, Naïve Bayes, Logistic Regression, K-Nearest Neighbor.