Prediction of Loan Approval using Machine Learning Algorithm

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Abstract*: In today's world, obtaining loans from financial institutions has become a very common phenomenon. Giving credit is one of the core businesses in banking and the importance of credit risk management was highlighted in the 2008 financial crisis. Loan defaults has become important as banks try to follow laws and regulations, grant credits to qualified customers, mitigate credits to unqualified customers and to make their application processes efficient. Every day many people apply for loans, for a variety of purposes for different tasks. But not all the applicants are reliable, and not everyone can be application get approved. Every year, there are many cases where people do not repay the loan amount to the bank which results in huge financial loss for bank. The risk associated with making a decision on a loan approval is immense. Hence, the idea of this project is to gather loan data from the Lending Club website &from bank websites by using machine learning techniques on this data to extract important information and predict if a customer would be able to applicable for loan or not. In other words, the goal is to predict if the customer would be a defaulter or not*

Keywords: Supervised learning, Predictive analytics, Logistic regression, Classification tree, Random Forest, Extreme gradient boosting, XGBoost

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DOI: 10.48175/IJARSCT-10436

ISSN
2581-9429
IJARSCT

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