Literature Survey

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S.NO	TITLE	PROPOSED WORK	TOOLS USED/ ALGORITHM	TECHNOLOGY	ADVANTAGES/ DISADVANTAGES
1	Loan default prediction using decision trees and random forest	It describes about the comprehensive and comparative analysis between two algorithms. Both the algorithms have been used on the same dataset and the conclusions have been made with results showing that the Random Forest algorithm outperformed the Decision Tree algorithm with much higher accuracy.	• Random Forest • Decision Trees	APPLIED DATA SCIENCE	**ADVANTAGES:** • It can perform both regression and classification tasks • A random forest produces good predictions that can be understood easily **DISADVANTAGES:** • The main limitation of random forest is that a large number of trees can make the algorithm too slow and ineffective for real-time predictions. • This algorithms are fast to train, but quite slow to create predictions once they are trained.

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2	An Exploratory Data Analysis for Loan Prediction Based on Nature of the Clients	The aim of this paper is to find the nature of the client applying for the personal loan. An exploratory data analysis technique is used to deal with this problem. The result of the analysis shows that short term loans are preferred by majority of the clients and the clients majorly apply loans for debt consolidation. The results are shown in graphs that helps the bankers to understand the client's behaviour.	• Loan analysis • exploratory data analysis technique • client's analysis • financial categories analysis	APPLIED DATA SCIENCE	**ADVANTAGES:** • It helps in assessing the skills and financial knowledge of the borrower to determine the level of risk involved. **DISADVANTAGES:** • The financial analysis does not contemplate cost price level changes • If not perform properly EDA can misguide a problem. • EDA does not effective when we deal with high-dimensional data.

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3.	Bank Loan Approval Prediction	In this we develop bank loan prediction system using machine learning techniques, so that the system automatically selects the eligible candidates to approve the loan. Keywords: Loan approval, Loan Default, Random Forest algorithm, Decision Tree algorithm, Naive Bayes algorithm, Logistic Regression algorithm, Loan prediction, Machine learning.	• Data Pre-processing • Data Analysis of Visualization • Comparing Algorithms • Deployment Using Flask	APPLIED DATA SCIENCE	**ADVANTAGES:** • Performance and accuracy of the algorithms can be calculated and compared. • Class imbalance can be dealt with machine learning approaches. **DISADVANTAGES:** • They had proposed a mathematical model and machine learning algorithms were not used.

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4.	Loan Delinquency Prediction	The main purpose is to figure out the delinquency status of loans for the any 'n' next month given the delinquency status for the previous 12 months.In our Combined Loan-to-Value and Unemployment model, while significant, they are both dominated. This comparison in data draws attention to the importance of the market cycle in deciding the causes of delinquency	• Data Cleaning • Proposed methodology • Random Forest Algorithm	APPLIED DATA SCIENCE	**ADVANTAGES:** • It builds decision trees on different samples and takes their majority vote for classification and average in case of regression. **DISADVANTAGE:** • Decision trees are quite expensive as well. They are harder to train because of the expense in larger projects and always have that problem of overfitting.

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5	LOAN ELIGIBILITY PREDICTION	The focus is to determine whether or not it will be safe to allocate loan to a particular person. The main aim of the project is to predict whether the customers are eligible for the loan and to check what the criteria, which prevented them from getting loan to make their own house.	• Data Collection • Data Cleaning • Performance Evaluation	APPLIED DATA SCIENCE	**ADVANTAGES:** • Data cleaning improves the quality of the training data for analytics and enables accurate decision-making. **DISADVANTAGES:** • A disadvantage of performance evaluations is that the managers Evaluating employees may show bias to certain employees ,which may happen intentionally or unintentionally.

S.No	TITLE	PROPOSED WORK	TOOLS USED/ ALGORITHM	TECHNOLOGY	ADVANTAGES/ DISADVANTAGES
6.	A lending scheme based on smart contract for banks.	The purpose of a novel loan investment model and smart contract algorithm. Afterwords, we build an intelligent risk control evaluation algorithm based on deep learning. To justify our work, we implemented a distributed application that can run safely. In addition, using the data set of paipai loan.	• Intelligent risk control algorithm • Smart contract algorithm	APPLIED DATA SCIENCE	**ADVANTAGES:** • Smart contracts reduces the need for intermediaries to handle transactions and, by extension, their associated time delays and fees. **DISADVANTAGES:** • Difficult to change. Changing smart contract processes is almost impossible, any error in the code can time-consuming and expensive to correct.

THANK YOU