

**VISVESVARAYA TECHNOLOGICAL UNIVERSITY JNANA SANGAMA,
BELAGAVI-590018, KARNATAKA, INDIA**



**PROJECT REPORT ON
“AI BASED LOAN DEFAULT PREDICTION SYSTEM”**

A dissertation submitted in partial fulfillment of the requirements for the award of the degree of

MASTER OF COMPUTER APPLICATIONS

OF

VISVESVARAYA TECHNOLOGICAL UNIVERSITY

BY

NAGASHREE H G 4BD21MC030

Under the Guidance of

Internal Guide

Dr. SHANKARAGOWDA B B

External Guide

Mr. KARIBASAVARAJA J



**DEPARTMENT OF MASTER OF COMPUTER APPLICATIONS,
BAPUJI INSTITUTE OF ENGINEERING AND TECHNOLOGY
DAVANGERE-577004 KARNATAKA**

2022-23

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“Task successful” makes everyone happy. But the happiness will be gold without glitter if we didn’t state the persons who have supported us to make it a success.

Success will be crowned to people who made it a reality but the people who constant guidance and encouragement made it possible will be crowned first on the eve of success

This acknowledgment transcends the reality of formality when we would like to express deep gratitude and respect to all those people behind the screen who guided, inspired and helped me for the completion of my project.

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इण्डिया इन्फोटेक
Journey Towards Success

PROJECT COMPLETION LETTER

This is to certify that the project titled “**AI BASED LOAN DEFAULT PREDICTION SYSTEM**” is submitted by **NAGASHREE H G** having USN **4BD21MC030**, 4th Semester MCA in , Bapuji institute of Engineering and Technology, Davangere, has successfully completed her academic project from 17-4-2023 to 17-7-2023 towards the fulfillment of the **Masters of Computer Applications** from Visvesvaraya Technological University, Belagavi.

During the period of project, she has interacted with concerned departments and collected effective information. Her character was found good during the above period.

For Sumukha Infotech

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ABSTRACT

In the contemporary financial landscape, the accurate assessment of credit risk is of paramount importance for both lenders and borrowers. This paper delves into the realm of loan default prediction by harnessing the power of machine learning techniques. Traditional credit scoring models have shown limitations in handling the complexity and diversity of modern financial data. In contrast, machine learning algorithms offer a promising avenue to exploit intricate patterns and relationships present in vast datasets. The primary objective of this is to develop a robust loan default prediction model that enhances the precision and reliability of credit risk assessment. Leveraging a comprehensive dataset encompassing various economic, demographic, and loan-related features, we employ a diverse set of machine learning algorithms. These algorithms encompass traditional techniques, such as logistic regression and decision trees, as well as advanced methodologies like random forests, support vector machines. Through an extensive experimental evaluation, we demonstrate the efficacy of the proposed machine learning models in accurately predicting loan default. We explore various performance metrics, including accuracy, precision, recall, and F1-score, to comprehensively assess model effectiveness. Furthermore, we conduct feature importance analysis to unveil the key determinants influencing the prediction process.

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