

An industrial oriented major project report

On

**DETECTION OF FRAUDULENT TRANSACTIONS IN INDIAN E-COMMERCE USING
DEEP LEARNING ALGORITHMS**

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BACHELOR OF TECHNOLOGY

IN

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This is to certify that this is the Bonafide certificate of a major project titled “**DETECTION OF FRAUDULENT TRANSACTIONS IN INDIAN E-COMMERCE USING DEEP LEARNING ALGORITHMS**” is submitted by **YALAKAPALLY PAVANI** bearing Roll no of **21W91A6665** Student of B.Tech in the partial fulfillment of the requirements for the degree of Bachelor of Technology in Computer Science and Engineering(AIML), Malla Reddy Institute of Engineering and Technology.

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I hereby declare that the Major Project entitled **“DETECTION OF FRAUDULENT TRANSACTIONS IN INDIAN E-COMMERCE USING DEEP LEARNING ALGORITHMS”** submitted to Malla Reddy Institute of Engineering and Technology (Autonomous), affiliated to Jawaharlal Nehru Technological University Hyderabad (JNTUH), for the award of the degree of Bachelor of Technology in Computer Science & Engineering(AIML) is a result of original industrial oriented Project done by us.

It is further declared that the Major Project or any part there of has not been Previously submitted to any University or Institute for the award of degree or diploma.

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ABSTRACT

The rapid growth of e-commerce in India has led to an increase in online transactions, making fraud detection a critical concern for businesses and consumers. Traditional fraud detection methods often struggle to keep up with evolving fraudulent techniques. This project, **"Detection of Fraudulent Transactions in Indian E-commerce Using Deep Learning Algorithms,"** leverages machine learning and deep learning models to enhance fraud detection accuracy. The system consists of **User** and **Sign-Up** modules, allowing users to interact with the model seamlessly. The core operations include running **Decision Tree, Random Forest, and Convolutional Neural Networks (CNN)** to analyze transaction patterns and classify them as fraudulent or legitimate. The predictive model is trained using real-world e-commerce transaction datasets, incorporating key features such as transaction amount, frequency, and user behavior patterns. By integrating **deep learning techniques**, this approach aims to improve detection efficiency, reduce false positives, and enhance overall security in the Indian e-commerce ecosystem.

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LIST OF ABBREVIATIONS

CNN: Convolutional Neural Network

DT: Decision Tree

LSTM: Long Short-Term Memory

ML: Machine Learning

RF: Random Forest

RNN: Recurrent Neural Network

ROC: Receiver Operating Characteristic

SMOTE: Synthetic Minority Over-sampling Technique

SVM: Support Vector Machine