IJARSCT
ISSN (Online) 2581-9429
International Journal of Advanced Research in Science, Communication and Technology (IJARSCT)
International Open-Access, Double-Blind, Peer-Reviewed, Refereed, Multidisciplinary Online Journal
Impact Factor: 7.53
Volume 4, Issue 6, November 2024

Credit Card Fraud Detection Using Machine Learning

Lohith E[1] and Mrs. Priyanka Mohan[2]
Student MCA, IVth Semester[1]
Assistant Professor, Department of MCA[2]
Dayananda Sagar Academy of Technology and Management, Udaypura, Bangalore, Karnataka, India
lohith.4518@gmail.com and priyanka-mca@dsatm.edu.in

Abstract: *The financial industry is very concerned about credit card theft because it can result in large losses. The Random Forest technique, which is renowned for its accuracy and capacity to handle unbalanced datasets, is used in this project to create a strong fraud detection system. Based on several characteristics, the model that was trained on a labeled dataset of credit card transactions can differentiate between authentic and fraudulent activity. Using Flask, HTML, CSS, and JavaScript for a responsive front end and Python and JavaScript for a reliable back end, the system is integrated into a full-stack web application. For safe data storage, MySQL is used. The web tool uses sophisticated data visualization to provide insights while enabling real-time transaction monitoring, fraud warnings, and historical data analysis.*

Keywords: Credit Card Fraud, Random Forest, Data Visualization, Fraud Detection, Real- Time Monitoring, and Web Development