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 5, Issue 1, January 2025

Machine Learning for Fraud Detection In Financial Transactions

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Abstract: *Fraud detection in credit card transactions is a critical application of machine learning, leveraging techniques like supervised learning (e.g., logistic regression, decision trees, and neural networks) and unsupervised methods (e.g., anomaly detection). Effective feature engineering enhances model performance, while metrics such as precision, recall, and ROC-AUC address the class imbalance challenge. This study highlights a robust pipeline for fraud detection, addressing evolving fraud tactics and balancing accuracy with user satisfaction.*

Keywords: Fraud detection

DOI: 10.48175/IJARSCT-22945