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Walmart Transaction Fraud Detection System

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Abstract

Walmart's patent, "Self-Calibrating Fraud Detection," describes a system and method for enhanced fraud detection in automated electronic transactions, utilizing machine learning to analyze previous payment transfer data and prevent fraudulent transactions by comparing generated fraud detection values to a threshold.Machine learning models are trained and validated using this structured dataset as the basis.A variety of machine learning techniques are used to build a strong fraud detection model, such as decision trees, neural networks, and anomaly detection. Through constant adaptation to changing fraud patterns and gradual accuracy improvement, the models are trained on previous data. Integrating these models into Walmart's transaction processing systems makes real-time monitoring easier.
To sum up, this study provides a thorough foundation for transaction fraud.In summary, this article offers a thorough framework for Walmart transaction fraud detection that makes use of cutting-edge analytical tools to improve real-time monitoring capabilities, accuracy, and adaptability. The suggested solution puts Walmart at the forefront of applying cutting-edge technology to counteract changing risks in the retail industry while also bolstering the security of financial transactions.
Keywords: Transaction Fraud Detection,Data Preprocessing, Feature Engineering, Machine Learning Models, Decision Trees,Security of Financial Transactions,Data Extraction,Financial Security