DESIGN PROJECT
Group 7

CREDIT CARD FRAUD DETECTION

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Introduction

A credit card is a payment card issued to the user as a system of payment. It permits the cardholder to acquire products and services based on the card holder's purchase. A credit card is quite useful for day to day life. Fraud is as old as the human race. Fraud can be defined as a criminal deception with the intent of acquiring financial gain.

You're studying your credit card statement and you notice a $200 charge at a nearby electronics store. Problem is, you haven't shopped at the store in months. That suspicious charge could be a sign that you've been a victim of credit card fraud.

Credit card fraud happens when someone a fraudster or a thief uses your stolen credit card or the information from that card to make unauthorized purchases in your name or take out cash advances using your account. Credit card fraud detection is when a business takes steps to prevent stolen money, products, or services obtained via an illegitimate credit card transaction. Credit card fraud is considered a form of identity theft. Thieves are using a portion of your identity, your credit card information to make fraudulent purchases or to access cash advances.

Abstract

Credit card fraud is increasing considerably with the development of modern technology and the global superhighways of communication. Credit card fraud costs consumers and the financial company billions of dollars annually, and fraudsters continuously try to find new rules and tactics to commit illegal actions. Thus, fraud detection systems have become essential for banks and financial institutions, to minimize their losses. However, there is a lack of published literature on credit card fraud detection techniques, due to the unavailable credit card transaction dataset for researchers. The most common techniques used fraud detection methods are Naïve Bayes (NB), Support Vector Machines (SVM), K-Nearest Neighbor algorithms (KNN). These techniques can be used alone or in collaboration with its exceptional predictive performance on practical problems.

Scope of Topic

Credit card fraud detection features use user behavior and location scanning to check for unusual patterns. These patterns include user characteristics such as user spending patterns as well as usual user geographic locations to verify his identity. The proposed architecture is to emphasize a fraud prevention system to verify a transaction as fraudulent or legitimate. Advances in technology give criminals increasingly powerful tools to commit fraud, especially using credit cards or internet bots. To combat the evolving face of fraud, researchers are developing increasingly sophisticated tools, with algorithms and data structures capable of handling large-scale complex data analysis and storage. Credit card fraud isn't rare, and it could happen to anyone. This is why it's so important to take the steps necessary to help prevent it.

List of References

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