Project Proposal

Prepared for: Data Mining [CS634101] Project

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DESCRIPTION

INTRODUCTION

In this digital era the usage of credit card has become normal. During the recent COVID pandemic, especially for purchases In the e-commerce sites, bill payments, investments etc. credit cards were extensively used and more cards were subscribed. With the increased usage of credit cards also increased the number of fraudulent activities leading to significant financial losses for both the consumer and the financial organisations. It is observed that fraudulent transactions have increased by 35% from 2018. There are various ways a credit card fraud can happen, for example:

1. Stolen or fake credit card
2. Website cloning
3. ATM fraud
4. Phishing etc.

GOAL

To tackle this issue, it is essential to develop solutions that can mitigate fraudulent transaction by smartly detecting them. As students of the data mining course, the goal is to develop a solution to detect credit card frauds using data mining techniques.

APPROACH

Data mining techniques like K - Nearest Neighbour, Naive Bayes Algorithm, K - Means Clustering, Apriori Algorithm, Association Rule Mining can be applied to develop a fraud detection and prevention model based on the references.

Currently we're evaluating the dataset and the techniques by gathering information about their python libraries to materialise and develop the model.

DATASET

The dataset chosen for the credit card fraud detection project is:

https://www.kaggle.com/datasets/kartik2112/fraud-detection

REFERENCES

- https://iopscience.iop.org/article/10.1149/10701.4977ecst
- https://www.spiceworks.com/it-security/vulnerability-management/articles/what-is-fraud-detection/
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