

Capstone 3

Credit card fraud detection

Credit cards are convenient ways to make transactions, but they're not perfect. Credit card scams are everywhere, and credit card fraud is a growing problem. Based on data from the Federal Reserve and the Census Bureau an average of 9.5 million consumers a year experience an incident of credit card fraud.

The aim of this project is to predict fraudulent credit card transactions using machine learning models. It is crucial for credit card companies to identify fraudulent transactions so that customers are not charged for items that they did not purchase. While it may not cost customers out-of-pocket money, dealing with credit card fraud can cost a great deal of time and aggravation, and can do major damage to customers' reports and scores.

This project will help to detect suspicious activities on customers credit cards using the dataset from [Kaggle](#). The dataset contains transactions made over a period of two days in September 2013 by European credit cardholders. The dataset is highly unbalanced, the positive class (frauds) account for 0.172% of all transactions.