Credit card fraud detection

Objectives

EU Bank is one of the largest banks issuing credit cards in the European sub-continent.

EU Bank continuously looks to detect and prevent fraudulent transactions.

EU Bank has obtained a large set of authentic data for transactions made by credit card in September 2013 by European cardholders.

Out of 284,807 transactions, 492 (0.172%) transactions were found to be fraudulent.

EU Bank wishes to develop an algorithm to prevent fraudulent transactions in future.

Objectives

The dataset presents transactions that occurred in two days. The feature ‘Time’ contains seconds elapsed between each transaction and the first transaction in the dataset.

The feature ‘Amount’ contains the value of the transaction in Euros.

The feature ‘Class’ is used to categorize the transaction as fraud (0) or genuine (1).

The data is highly confidential and therefore it is made anonymous by applying Principal Component Analysis. Features V1….V28 are the principal components obtained with PCA

Data Description

Variables Description

Total size : 284807 X 31

Data file : creditcard.csv

Variables	Description
Time	Seconds elapsed between each transaction and the first transaction in the dataset
$V_1 \ldots V_{28}$	Principal Components obtained using PCA
Amount	Value of the transaction in Euros
Class	0- fraud and 1-genuine