CREDIT CARD FRAUD DETECTION

ABSTRACT: The project is used to recognize fraudulent credit card transactions so that the customers of credit card companies are not charged for items that they did not purchase.This project has been done in python.

DATASET: The data set has 31 features, 28 of which have been anonymized and are labeled V1 through V28. The remaining three features are the time and the amount of the transaction as well as whether that transaction was fraudulent or not(class).

DATA ANALYSIS: By calculating the outlier fraction of the data we have concluded that only 0.17% fraudulent transaction out all the transactions. The data is highly unbalanced. Then the relevant data is split into training and testing data

ALGORITHMS USED: as the following problem is a classification problem we have used the following classification alogorithms to find which works best for the problem by juding accuracy:

* Logistic regression:0.92
* Support Vector Classifier:0.93
* Random Forest Classifier:0.97

CLASSIFACTION REPORT BY USING RANDOM FOREST CLASSIFIER: