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Fraud Detection: A Study of AdaBoost Classifier and K-Means Clustering

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Research Article

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Abstract

Fraud is a problem which can affect the economy greatly. Billions of dollars are lost because of fraud cases. These problems can occur through credit cards, insurance and bank accounts. Currently there have been many studies for preventing fraud. Machine learning techniques have helped in analysing fraud detection. These include many supervised and unsupervised models. Neural networks can be used for fraud detection. The dataset for the present work was collected from a research collaboration between Worldline and the Machine Learning Group of Université Libre de Bruxelles on the topic of big data mining and fraud detection. It consists of the time and amount of various transactions of European card holders during the month of September in 2013. This paper gives an analysis of the past and the present models used for fraud detection and presents a study of using K-Means Clustering and AdaBoost Classifier by comparing their accuracies.

Full Text

Due to technical limitations, full-text HTML conversion of this manuscript could not be completed. However, the latest manuscript can be downloaded and accessed as a PDF.

Figures



Figure 1

Supervised vs Unsupervised Machine Learning Models