

ABSTRACT

Methods and systems for detecting fraudulent data points in a database of a computerized system include receiving, from a user device, a request for detecting one or more fraudulent data points in a database storing data points representing electronic transactions. The system constructs a feature vector for each data point and k random vectors. After constructions, the system performs a combination of Locality Sensitive Hashing algorithm and Local Outlier Factor (LOF) algorithm on the constructed feature vectors and the constructed k random vectors to compute outlier scores for each data point. The system detects a fraudulent data point based on the outlier scores that indicate consistent degrees.