

ABSTRACT

Aspects concern a method for detecting anomalies in double-party interaction data, comprising representing interactions between parties of a first group and parties of a second group as a graph, wherein each interaction between a first party of the first group and a second party of the second group is represented by an edge between a respective first node representing the first party and a respective second node representing the second party and wherein information about the first party is assigned to the first node as node attribute information, information about the second party is assigned to the second node as node attribute information and information about the interaction is assigned to the edge as edge attribute information, processing the graph by a graph convolutional neural network having an autoencoder structure, deriving anomaly scores for interactions, parties of the first group and parties of the second group from a reconstruction loss between the graph and an output of the graph convolutional neural network in response to the graph including at least a loss between the edge attribute information and edge attribute information reconstructed by a decoder of the graph convolutional neural network and detecting anomalies based on the anomaly scores.

FIG. 5