

ABSTRACT

Described are a system, method, and computer program product for user network activity anomaly detection. The method includes receiving network resource data associated with network resource activity of a plurality of users and generating a plurality of layers of a multilayer graph from the network resource data. Each layer of the plurality of layers may include a plurality of nodes, which are associated with users, connected by a plurality of edges, which are representative of node interdependency. The method also includes generating a plurality of adjacency matrices from the plurality of layers and generating a merged single layer graph based on a weighted sum of the plurality of adjacency matrices. The method further includes generating anomaly scores for each node in the merged single layer graph and determining a set of anomalous users based on the anomaly scores.

<Figure 2>