SYSTEM. METHOD. AND COMPUTER PROGRAM PRODUCT FOR GENERATING SYNTHETIC GRAPHS THAT SIMULATE REAL-TIME TRANSACTIONS

ABSTRACT

Provided is a computer-implemented method for generating synthetic graphs that simulate real-time payment transactions that includes generating a base payment graph includes a plurality of nodes and a plurality of edges connecting the plurality of nodes, wherein each node represents an entity and each edge represents a probability that a real-time-payment transaction may be conducted involving two entities that are connected by the edge, wherein the real-time payment transaction is artificially created, generating a plurality of dynamic payment graphs based on the base payment graph, inserting patterns representing adversarial activity into the plurality of dynamic payment graphs, and performing an action associated with a machine learning technique using the plurality of dynamic payment graphs. Systems and computer program products are also provided.