

GRAPH NODE RELATIONSHIP REPRESENTATION GENERATION AND GRAPH NODE SERVICE RELATIONSHIP PREDICTION

ABSTRACT

Embodiments of this specification provide methods and apparatuses for generating a graph node relationship representation and methods and apparatuses for predicting a graph node service relationship. During generation of a relationship representation between graph nodes, node representation propagation and node representation aggregation are separately performed starting from a first graph node and a second graph node to determine node representations of the second graph node and the first graph node; and a node relationship representation between the first graph node and the second graph node is generated based on the node representations of the first graph node and the second graph node. During the node representation propagation, the previous node propagation representation of each source graph node is propagated to each target graph node in a target graph node set of the source graph node; and current node propagation representations of the target graph nodes are generated based on node propagation representations received by the target graph nodes and the previous node propagation representations of the target graph nodes. During node representation aggregation processing, a current node representation of an aggregation graph node is generated based on the previous node representation of the aggregation graph node and the previous node representation of a neighboring graph node.

FIG. 2