Overview of Section 4.2.1: DL based Graph Embedding with Random Walk from *A comprehensive survey of graph embedding: problems, techniques, and applications* *Cai, et. al.* *IEEE Transactions on Knowledge and Data Engineering, Sept. 2017*

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Context

Problem

Given a finite graph G, find an embedding of G into a relatively low dimensional Euclidean space in a way that captures relevant information about the structure of the graph.

Deep Learning algorithms in general are typically based on neural networks and are characterized by non-linearity and hierarchical structure.

Deep learning techniques for graph embedding sample structure from a large graph and apply techniques arising from natural language processing to those samples to construct an embedding.