Motif-Aware Graph Embedding

Hoang Nguyen
Tokyo Institute of Technology
hoangnt@net.c.titech.ac.jp

Shun Nukui
Tokyo Institute of Techonology
nukui.s@net.c.titech.ac.jp

Tsuyoshi Murata
Tokyo Institute of Techonology
murata@c.titech.ac.jp

Abstract

Latent vector representations quality of skipgram model is extremely sensitive to graph context generation method. Generally, random walk is the most popular method to create an artificial context from graph. Recent researches in skipgram-based graph embedding have hinted that embedding quality can be improved by manipulating the graph context generation process. In this paper, we propose a novel graph embedding algorithm that emphasizes motif structure of a graph. Our algorithm generate positive samples by