

The influence of centrality measures on link prediction in knowledge graphs

Research Question: Can we provide a novel approach towards link prediction, which integrates centrality measures with classical machine learning methods?

Background: Knowledge graphs have been shown to play a significant role in current knowledge mining fields, including life sciences, bioinformatics, computational social sciences, and social network analysis. The problem of link prediction bears many applications and has been extensively studied. However, most methods are restricted to dimension reduction, probabilistic model, or similarity-based approaches and are inherently biased.

Data: Several inhouse/external knowledge graphs.

Literature: J. Dörpinghaus, D. Stepanov, T. Hübenthal. A novel DFS/BFS approach towards link prediction. 2024. Preprint at <https://arxiv.org/abs/2409.11687>

Requirements: Coding (Python); ML

Contact: Dr. Jens Dörpinghaus (doerpinghaus@uni-koblenz.de)
