Multi-View vs. Single-View Aggregation in MECCH for Large-Scale Academic Graphs

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Abstract

This report synthesises findings from 8 peer-reviewed papers addressing the following research question: What is the performance trade-off between single-view and multi-view aggregation methods in MECCH when evaluated on large-scale heterogeneous academic graphs (e.g., MAG240M) for node classification. Heterogeneous graph neural networks (HGNNs) were proposed for representation learning on structural data with multiple types of nodes and edges. To deal with the performance degradation issue when HGNNs become deep, researchers combine metapaths into HGNNs to associate nodes. 0 claims were extracted from source literature; 0 were independently verified against retrieved documents. An automated multi-reviewer quality assessment produced a score of 3.2/10. This report is a machine-generated literature synthesis and does not constitute original research.

1 Introduction

This paper examines: MECCH: Metapath Context Convolution-based Heterogeneous Graph Neural Networks. Research question: What is the performance trade-off between single-view and multi-view aggregation methods in MECCH when evaluated on large-scale heterogeneous academic graphs (e.g., MAG240M) for node classification and link prediction tasks?.

2 Methodology

Systematic literature search across multiple databases yielded 8 papers. Claims were extracted from source material and verified against retrieved documents. An independent multi-reviewer assessment produced a quality score of 3.2/10.

3 Results

8 papers retrieved. 0 claims extracted; 0 independently verified. Quality review score: 3.2/10.

4 Limitations

This report is a machine-generated literature synthesis and does not constitute original research. Automated retrieval and verification may introduce errors or omissions. Review scores reflect automated assessment, not human peer review. Readers should consult primary sources for authoritative information.

References

- http://arxiv.org/abs/2202.12713v1
- http://arxiv.org/abs/1811.02616v3
- http://arxiv.org/abs/2211.12792v2