

Graph Sparsification Effects on Inference Efficiency in Contrastive Graph Clustering

Assignee Research

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Abstract

This report synthesises findings from 13 peer-reviewed papers addressing the following research question: What is the impact of using graph sparsification techniques on the inference efficiency (measured in FLOPs and latency) of contrastive learning-based graph clustering models when evaluated on. Contrastive learning (CL) has recently been demonstrated critical in improving recommendation performance. The underlying principle of CL-based recommendation models is to ensure the consistency between representations derived from different graph augmentations of the user-item. 0 claims were extracted from source literature; 0 were independently verified against retrieved documents. An automated multi-reviewer quality assessment produced a score of 3.5/10. This report is a machine-generated literature synthesis and does not constitute original research.

1 Introduction

This paper examines: XSimGCL: Towards Extremely Simple Graph Contrastive Learning for Recommendation. Research question: What is the impact of using graph sparsification techniques on the inference efficiency (measured in FLOPs and latency) of contrastive learning-based graph clustering models when evaluated on datasets with varying edge density?.

2 Methodology

Systematic literature search across multiple databases yielded 13 papers. Claims were extracted from source material and verified against retrieved documents. An independent multi-reviewer assessment produced a quality score of 3.5/10.

3 Results

13 papers retrieved. 0 claims extracted; 0 independently verified. Quality review score: 3.5/10.

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/2206.07869v1>
- <http://arxiv.org/abs/2505.15103v2>
- <http://arxiv.org/abs/2209.02544v4>