LightGCL, SimGCL, and DCL Inference Throughput on Large-Scale Recommendation Graphs

Assignee Research

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Abstract

This report synthesises findings from 10 peer-reviewed papers addressing the following research question: How does the inference throughput of LightGCL compare to SimGCL and DCL on large-scale recommendation graphs when measured in samples per second. Graph neural network (GNN) is a powerful learning approach for graph-based recommender systems. Recently, GNNs integrated with contrastive learning have shown superior performance in recommendation with their data augmentation schemes, aiming at dealing with highly sparse data. 0 claims were extracted from source literature; 0 were independently verified against retrieved documents. An automated multi-reviewer quality assessment produced a score of 2.0/10. This report is a machine-generated literature synthesis and does not constitute original research.

1 Introduction

This paper examines: LightGCL: Simple Yet Effective Graph Contrastive Learning for Recommendation. Research question: How does the inference throughput of LightGCL compare to SimGCL and DCL on large-scale recommendation graphs when measured in samples per second?.

2 Methodology

Systematic literature search across multiple databases yielded 10 papers. Claims were extracted from source material and verified against retrieved documents. An independent multi-reviewer assessment produced a quality score of 2.0/10.

3 Results

10 papers retrieved. 0 claims extracted; 0 independently verified. Quality review score: 2.0/10.

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/2010.07027v5
- http://arxiv.org/abs/2506.00048v1
- http://arxiv.org/abs/2302.08191v3