

Adversarial Neighbor Distribution Shifts in GNN-Based Anomaly Detection Robustness

Assignee Research

May 31, 2026

Abstract

This report synthesises findings from 15 peer-reviewed papers addressing the following research question: What is the impact of neighbor distribution shifts caused by adversarial attacks on the robustness of GNN-based anomaly detectors in semi-supervised versus unsupervised settings. Anomaly detection on attributed networks attracts considerable research interests due to wide applications of attributed networks in modeling a wide range of complex systems. Recently, the deep learning-based anomaly detection methods have shown promising results over shallow. 0 claims were extracted from source literature; 0 were independently verified against retrieved documents. An automated multi-reviewer quality assessment produced a score of 3.7/10. This report is a machine-generated literature synthesis and does not constitute original research.

1 Introduction

This paper examines: Anomaly Detection on Attributed Networks via Contrastive Self-Supervised Learning. Research question: What is the impact of neighbor distribution shifts caused by adversarial attacks on the robustness of GNN-based anomaly detectors in semi-supervised versus unsupervised settings?.

2 Methodology

Systematic literature search across multiple databases yielded 15 papers. Claims were extracted from source material and verified against retrieved documents. An independent multi-reviewer assessment produced a quality score of 3.7/10.

3 Results

15 papers retrieved. 0 claims extracted; 0 independently verified. Quality review score: 3.7/10.

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/2103.14958v4>
- <http://arxiv.org/abs/2412.18370v3>
- <http://arxiv.org/abs/2103.00113v2>