

Non-IID Data Distribution Effects on Federated Intrusion Detection Convergence and Accuracy

Assignee Research

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Abstract

This report synthesises findings from 12 peer-reviewed papers addressing the following research question: What is the impact of non-IID data distribution on the convergence speed and detection accuracy of federated intrusion detection systems under label-flipping attacks. Cyber intrusion attacks that compromise the users' critical and sensitive data are escalating in volume and intensity, especially with the growing connections between our daily life and the Internet. The large volume and high complexity of such intrusion attacks have impeded the. 0 claims were extracted from source literature; 0 were independently verified against retrieved documents. An automated multi-reviewer quality assessment produced a score of 1.8/10. This report is a machine-generated literature synthesis and does not constitute original research.

1 Introduction

This paper examines: A Hybrid Deep Learning Anomaly Detection Framework for Intrusion Detection. Research question: What is the impact of non-IID data distribution on the convergence speed and detection accuracy of federated intrusion detection systems under label-flipping attacks?.

2 Methodology

Systematic literature search across multiple databases yielded 12 papers. Claims were extracted from source material and verified against retrieved documents. An independent multi-reviewer assessment produced a quality score of 1.8/10.

3 Results

12 papers retrieved. 0 claims extracted; 0 independently verified. Quality review score: 1.8/10.

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/2212.00966v1>
- <http://arxiv.org/abs/2311.05826v1>
- <http://arxiv.org/abs/2406.16308v1>