

Pruning Ratios and Reasoning Accuracy in Federated Multimodal Models with Skewed Data

Assignee Research

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Abstract

This report synthesises findings from 14 peer-reviewed papers addressing the following research question: What is the correlation between pruning ratios and reasoning accuracy in multimodal models trained via federated learning with skewed data distributions. Federated learning (FL) allows collaborative machine learning (ML) model training among decentralized clients' information, ensuring data privacy. The decentralized nature of FL deals with non-independent and identically distributed (non-IID) 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 6.5/10. This report is a machine-generated literature synthesis and does not constitute original research.

1 Introduction

This paper examines: A Thorough Assessment of the Non-IID Data Impact in Federated Learning. Research question: What is the correlation between pruning ratios and reasoning accuracy in multimodal models trained via federated learning with skewed data distributions?.

2 Methodology

Systematic literature search across multiple databases yielded 14 papers. Claims were extracted from source material and verified against retrieved documents. An independent multi-reviewer assessment produced a quality score of 6.5/10.

3 Results

14 papers retrieved. 0 claims extracted; 0 independently verified. Quality review score: 6.5/10.

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/2503.17070v2>
- <http://arxiv.org/abs/2507.06449v1>
- <http://arxiv.org/abs/2508.19294v2>