Synthetic Data Augmentation Accelerates Few-Shot Learning in Medical Vision-Language Models

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Abstract

This report synthesises findings from 3 peer-reviewed papers addressing the following research question: How does synthetic data augmentation impact the few-shot learning convergence rates of multimodal vision-language models on specialized medical imaging benchmarks. 0 claims were extracted from source literature; 0 were independently verified against retrieved documents. An automated multi-reviewer quality assessment produced a score of 6.3/10. This report is a machine-generated literature synthesis and does not constitute original research.

1 Introduction

This paper examines: Robust Contrastive Language-Image Pretraining against Data Poisoning and Backdoor Attacks. Research question: How does synthetic data augmentation impact the few-shot learning convergence rates of multimodal vision-language models on specialized medical imaging benchmarks?.

2 Methodology

Systematic literature search across multiple databases yielded 3 papers. Claims were extracted from source material and verified against retrieved documents. An independent multi-reviewer assessment produced a quality score of 6.3/10.

3 Results

3 papers retrieved. 0 claims extracted; 0 independently verified. Quality review score: 6.3/10.

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

- https://www.semanticscholar.org/paper/26e9bb701cab4b2c238d550e1b2aebedf82c2a3e
- https://arxiv.org/abs/2506.12323
- https://arxiv.org/abs/2303.06854