Adaptive Weighting in Contrastive Learning for Scalable ECG Classification

Assignee Research

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Abstract

This report synthesises findings from 15 peer-reviewed papers addressing the following research question: How does the performance of contrastive learning with adaptive weighting schemes scale in comparison to standard contrastive losses when applied to ECG datasets of varying sizes, and what is 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 3.7/10. This report is a machine-generated literature synthesis and does not constitute original research.

1 Introduction

This paper examines: ECG-Lens: Benchmarking ML & DL Models on PTB-XL Dataset. Research question: How does the performance of contrastive learning with adaptive weighting schemes scale in comparison to standard contrastive losses when applied to ECG datasets of varying sizes, and what is the impact on model convergence speed as measured by AUC-ROC on PTB-XL and MIT-BIH datasets?.

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/2604.15822v1
- http://arxiv.org/abs/2304.06427v2
- http://arxiv.org/abs/2004.13701v1