Vision-Language vs. Pure Visual Models in Medical Image Segmentation: A Meta-Analysis of Synthetic Metrics and Human Agreement

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Abstract

This report synthesises findings from 13 peer-reviewed papers addressing the following research question: How do vision-language models compare to pure visual models in terms of correlation between synthetic segmentation metrics and human rater agreement on multimodal medical image tasks like BRATS,. Training a deep neural network is an optimization problem with four main ingredients: the design of the deep neural network, the per-sample loss function, the population loss function, and the optimizer. However, methods developed to compete in recent BraTS challenges tend to. 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: Generalized Wasserstein Dice Score, Distributionally Robust Deep Learning, and Ranger for brain tumor segmentation: BraTS 2020 challenge. Research question: How do vision-language models compare to pure visual models in terms of correlation between synthetic segmentation metrics and human rater agreement on multimodal medical image tasks like BRATS, measured by Dice score and Hausdorff distance?.

2 Methodology

Systematic literature search across multiple databases yielded 13 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

13 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/2011.01614v2
- http://arxiv.org/abs/2603.09625v2
- http://arxiv.org/abs/2011.11052v1