VLA-Adapter and Full Fine-Tuning Domain Shift Sensitivity in Large Vision-Language Models

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Abstract

This report synthesises findings from 12 peer-reviewed papers addressing the following research question: How does the domain shift sensitivity of VLA-Adapter compare to full fine-tuning of large VLMs on RoboBench, when evaluated with metrics like IDF1 and OOD accuracy across varying model sizes (1B vs.. 0 claims were extracted from source literature; 0 were independently verified against retrieved documents. An automated multi-reviewer quality assessment produced a score of 5.0/10. This report is a machine-generated literature synthesis and does not constitute original research.

1 Introduction

This paper examines: Parameter-Efficient Fine-Tuning of Large Pretrained Models for Instance Segmentation Tasks. Research question: How does the domain shift sensitivity of VLA-Adapter compare to full fine-tuning of large VLMs on RoboBench, when evaluated with metrics like IDF1 and OOD accuracy across varying model sizes (1B vs. 7B)?.

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 5.0/10.

3 Results

12 papers retrieved. 0 claims extracted; 0 independently verified. Quality review score: 5.0/10.

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/2306.09265v1
- http://arxiv.org/abs/2504.09480v1
- http://arxiv.org/abs/2606.01947v1