

Inference Efficiency and Memory Footprint of 3B, 7B, and 13B VLMs in Embodied-R1 LongNav-R1 Tasks

Assignee Research

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Abstract

This report synthesises findings from 3 peer-reviewed papers addressing the following research question: How does the 3B VLM in Embodied-R1 compare to 7B and 13B VLAs in terms of inference efficiency and memory footprint when evaluated on LongNav-R1 with R2R-CE instructions of varying complexity. The field of fluid mechanics is rapidly advancing, driven by unprecedented volumes of data from experiments, field measurements, and large-scale simulations at multiple spatiotemporal scales. Machine learning (ML) offers a wealth of techniques to extract information from 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 3.7/10. This report is a machine-generated literature synthesis and does not constitute original research.

1 Introduction

This paper examines: Machine Learning for Fluid Mechanics. Research question: How does the 3B VLM in Embodied-R1 compare to 7B and 13B VLAs in terms of inference efficiency and memory footprint when evaluated on LongNav-R1 with R2R-CE instructions of varying complexity?.

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 3.7/10.

3 Results

3 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

- <https://doi.org/10.3386/w8337>
- <https://doi.org/10.7249/mr1626>
- <https://doi.org/10.1146/annurev-fluid-010719-060214>