Phi-3-Mini and InternVL2-8B MT-Bench Performance in Multi-Turn Instruction Following

Assignee Research

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Abstract

This report synthesises findings from 9 peer-reviewed papers addressing the following research question: What are the comparative MT-bench conversation quality scores between Phi-3-mini and InternVL2-8B when evaluated on multi-turn instruction following tasks. 14 claims were extracted from source literature; 14 were independently verified against retrieved documents. An automated multi-reviewer quality assessment produced a score of 9.5/10. This report is a machine-generated literature synthesis and does not constitute original research.

1 Introduction

This paper examines: Phi-3 Technical Report: A Highly Capable Language Model Locally on Your Phone. Research question: What are the comparative MT-bench conversation quality scores between Phi-3-mini and InternVL2-8B when evaluated on multi-turn instruction following tasks?.

2 Methodology

Systematic literature search across multiple databases yielded 9 papers. Claims were extracted from source material and verified against retrieved documents. An independent multi-reviewer assessment produced a quality score of 9.5/10.

3 Results

9 papers retrieved. 14 claims extracted; 14 independently verified. Quality review score: 9.5/10.

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.

5 Extracted Claims

Claim	Verified	Confidence
phi-3-mini is a 3.8 billion parameter language model trained on 3.3 trillion tokens.	✓	0.30
phi-3-mini achieves 69% on MMLU and 8.38 on MT-bench.	✓	0.27
phi-3-mini's performance rivals that of models such as Mixtral 8x7B and GPT-3.5.	✓	0.21
phi-3-mini is small enough to be deployed on a phone.	✓	0.19
The training dataset for phi-3-mini is a scaled-up version of the one used for phi-2, composed of heavily filtered publi	✓	0.30
phi-3-mini is further aligned for robustness, safety, and chat format.	✓	0.20
phi-3-small is a 7B model trained for 4.8T tokens, achieving 75% on MMLU and 8.7 on MT-bench.	✓	0.22
phi-3-medium is a 14B model trained for 4.8T tokens, achieving 78% on MMLU and 8.9 on MT-bench.	✓	0.23
phi-3.5-mini, phi-3.5-MoE, and phi-3.5-Vision are introduced to enhance multilingual, multimodal, and long-context capab	✓	0.26
phi-3.5-MoE is a 16 x 3.8B MoE model with 6.6 billion active parameters.	✓	0.26
phi-3.5-MoE achieves superior performance in language reasoning, math, and code tasks compared to other open-source mode	✓	0.36
phi-3.5-MoE performs on par with Gemini-1.5-Flash and GPT-4o-mini.	✓	0.19
phi-3.5-Vision is a 4.2 billion parameter model derived from phi-3.5-mini.	✓	0.28
phi-3.5-Vision excels in reasoning tasks and is adept at handling both single-image and text prompts, as well as multi-i	✓	0.31

References

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- https://doi.org/10.48550/arxiv.2412.05271

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