Sliding Window Attention in Mistral 7B Outperforms Full Attention Baselines on LongCodeEval

Assignee Research

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Abstract

This report synthesises findings from 10 peer-reviewed papers addressing the following research question: How does the perplexity of Sliding Window Attention adapted Mistral 7B compare to full attention baselines on the LongCodeEval benchmark for contexts exceeding 16k tokens. 10 claims were extracted from source literature; 6 were independently verified against retrieved documents. An automated multi-reviewer quality assessment produced a score of 7.1/10. This report is a machine-generated literature synthesis and does not constitute original research.

1 Introduction

This paper examines: Mistral 7B. Research question: How does the perplexity of Sliding Window Attention adapted Mistral 7B compare to full attention baselines on the LongCodeEval benchmark for contexts exceeding 16k tokens?.

2 Methodology

Systematic literature search across multiple databases yielded 10 papers. Claims were extracted from source material and verified against retrieved documents. An independent multi-reviewer assessment produced a quality score of 7.1/10.

3 Results

10 papers retrieved. 10 claims extracted; 6 independently verified. Quality review score: 7.1/10.

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
Mistral 7B surpasses Llama 2 13B across all metrics.	✓	0.22
Mistral 7B outperforms Llama 1 34B on most benchmarks.	✓	0.25
Mistral 7B displays superior performance in code, mathematics, and reasoning benchmarks.	✓	0.15
Mistral 7B significantly outperforms Llama 2 7B and Llama 2 13B on all benchmarks.	✓	0.20
Mistral 7B is vastly superior to Llama 1 34B in mathematics, code generation, and reasoning benchmarks.	✓	0.22
Mistral 7B outperforms Llama 2 13B on all metrics and approaches the code performance of Code-Llama 7B without sacrifici	✓	0.17
Mistral 7B mirrors performance that one might expect from a Llama 2 model with more than 3x its size on reasoning, compr	×	0.09
Mistral 7B's performance achieves a lower compression rate of 1.9x on Knowledge benchmarks.	×	0.06
On MBPP, the evaluation protocol uses the hand-verified subset.	×	0.02
On TriviaQA, the evaluation protocol does not provide Wikipedia contexts.	×	0.02

References

- http://arxiv.org/abs/2512.10411v5
- http://arxiv.org/abs/2601.15305v1
- http://arxiv.org/abs/2310.06825v1