

Gated Sparse Attention Performance in Long-Context Code Generation Benchmarks

Assignee Research

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Abstract

This report synthesises findings from 9 peer-reviewed papers addressing the following research question: What is the impact of Gated Sparse Attention on perplexity and generation quality (measured by ROUGE-L and BLEU scores) in long-context code generation tasks when compared to dense attention and. The computational burden of attention in long-context language models has motivated two largely independent lines of work: sparse attention mechanisms that reduce complexity by attending to selected tokens, and gated attention variants that improve training stability while. 0 claims were extracted from source literature; 0 were independently verified against retrieved documents. An automated multi-reviewer quality assessment produced a score of 1.7/10. This report is a machine-generated literature synthesis and does not constitute original research.

1 Introduction

This paper examines: Gated Sparse Attention: Combining Computational Efficiency with Training Stability for Long-Context Language Models. Research question: What is the impact of Gated Sparse Attention on perplexity and generation quality (measured by ROUGE-L and BLEU scores) in long-context code generation tasks when compared to dense attention and other sparse alternatives on the HumanEval-Long benchmark?.

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 1.7/10.

3 Results

9 papers retrieved. 0 claims extracted; 0 independently verified. Quality review score: 1.7/10.

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

- <http://arxiv.org/abs/1801.10296v2>
- <http://arxiv.org/abs/2603.20586v2>
- <http://arxiv.org/abs/2601.15305v1>