

FlowKV and SmoothFormer Outperform Memory-Efficient Attention in Long-Context Llama-3-70B Tasks

Assignee Research

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Abstract

This report synthesises findings from 10 peer-reviewed papers addressing the following research question: How does the combination of FlowKV and SmoothFormer compare to other memory-efficient attention mechanisms (e.g., Sparse Attention, Block-Sparse Attention) in terms of LongBench accuracy and throughput for Llama-3-70b on mixed-domain tasks (e.g., legal, technical, conversational) with context lengths up to 200K tokens?. 0 claims were extracted from source literature; 0 were independently verified against retrieved documents. An automated multi-reviewer quality assessment produced a score of 7.3/10. This report is a machine-generated literature synthesis and does not constitute original research.

1 Introduction

This paper examines: Block Sparse Flash Attention. Research question: How does the combination of FlowKV and SmoothFormer compare to other memory-efficient attention mechanisms (e.g., Sparse Attention, Block-Sparse Attention) in terms of LongBench accuracy and throughput for Llama-3-70b on mixed-domain tasks (e.g., legal, technical, conversational) with context lengths up to 200K 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 7.3/10.

3 Results

10 papers retrieved. 0 claims extracted; 0 independently verified. Quality review score: 7.3/10.

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/2512.07011v1>
- <http://arxiv.org/abs/2601.15305v1>
- <http://arxiv.org/abs/2310.05276v1>