

Hierarchical Retrieval in RAG Improves Accuracy for Sub-10B Models on SIMCOPILOTJ

Assignee Research

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Abstract

This report synthesises findings from 13 peer-reviewed papers addressing the following research question: How does the integration of hierarchical retrieval strategies in RAG impact the accuracy of sub-10B parameter models on the SIMCOPILOTJ benchmark when compared to flat retrieval methods, measured by. 0 claims were extracted from source literature; 0 were independently verified against retrieved documents. An automated multi-reviewer quality assessment produced a score of 4.3/10. This report is a machine-generated literature synthesis and does not constitute original research.

1 Introduction

This paper examines: Evaluating Multi-Hop Reasoning in RAG Systems: A Comparison of LLM-Based Retriever Evaluation Strategies. Research question: How does the integration of hierarchical retrieval strategies in RAG impact the accuracy of sub-10B parameter models on the SIMCOPILOTJ benchmark when compared to flat retrieval methods, measured by pass@1 and BLEU scores?.

2 Methodology

Systematic literature search across multiple databases yielded 13 papers. Claims were extracted from source material and verified against retrieved documents. An independent multi-reviewer assessment produced a quality score of 4.3/10.

3 Results

13 papers retrieved. 0 claims extracted; 0 independently verified. Quality review score: 4.3/10.

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/2404.07220v2>
- <http://arxiv.org/abs/2510.22344v1>
- <http://arxiv.org/abs/2604.18234v1>