

Retrieval Technique Impact on Sub-10B Parameter Models in Religious QA Retrieval-Augmented Generation

Assignee Research

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Abstract

This report synthesises findings from 15 peer-reviewed papers addressing the following research question: What is the impact of different retrieval techniques (e.g., BM25, dense retrieval, hybrid retrieval) on the performance of sub-10B parameter models in retrieval-augmented generation for religious QA. 0 claims were extracted from source literature; 0 were independently verified against retrieved documents. An automated multi-reviewer quality assessment produced a score of 3.7/10. This report is a machine-generated literature synthesis and does not constitute original research.

1 Introduction

This paper examines: Blended RAG: Improving RAG (Retriever-Augmented Generation) Accuracy with Semantic Search and Hybrid Query-Based Retrievers. Research question: What is the impact of different retrieval techniques (e.g., BM25, dense retrieval, hybrid retrieval) on the performance of sub-10B parameter models in retrieval-augmented generation for religious QA tasks, evaluated using exact match accuracy and response latency on cross-domain benchmarks?.

2 Methodology

Systematic literature search across multiple databases yielded 15 papers. Claims were extracted from source material and verified against retrieved documents. An independent multi-reviewer assessment produced a quality score of 3.7/10.

3 Results

15 papers retrieved. 0 claims extracted; 0 independently verified. Quality review score: 3.7/10.

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/2404.07220v2>
- <http://arxiv.org/abs/2507.23334v2>
- <http://arxiv.org/abs/2503.16581v1>