Dense vs. Sparse Retrievers on NaturalQuestions: Robustness and Accuracy Under Misspellings

Assignee Research

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Abstract

This report synthesises findings from 14 peer-reviewed papers addressing the following research question: How does the performance of state-of-the-art dense retrievers on the NaturalQuestions benchmark compare to that of sparse retrieval models in terms of robustness against misspellings, and what are. 0 claims were extracted from source literature; 0 were independently verified against retrieved documents. An automated multi-reviewer quality assessment produced a score of 3.5/10. This report is a machine-generated literature synthesis and does not constitute original research.

1 Introduction

This paper examines: On the Robustness of LLM-Based Dense Retrievers: A Systematic Analysis of Generalizability and Stability. Research question: How does the performance of state-of-the-art dense retrievers on the NaturalQuestions benchmark compare to that of sparse retrieval models in terms of robustness against misspellings, and what are the measurable differences in retrieval accuracy?.

2 Methodology

Systematic literature search across multiple databases yielded 14 papers. Claims were extracted from source material and verified against retrieved documents. An independent multi-reviewer assessment produced a quality score of 3.5/10.

3 Results

14 papers retrieved. 0 claims extracted; 0 independently verified. Quality review score: 3.5/10.

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/2204.00716v2
- http://arxiv.org/abs/2205.02303v1
- http://arxiv.org/abs/2604.16576v1