

Fine-Tuning Multilingual Dense Retrievers on BEIR-PL for Zero-Shot Slavic Language Retrieval

Assignee Research

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Abstract

This report synthesises findings from 13 peer-reviewed papers addressing the following research question: How does fine-tuning multilingual dense retrievers on BEIR-PL impact zero-shot cross-lingual retrieval accuracy compared to SPLADE and BM25 baselines on other low-resource Slavic languages. State-of-the-art neural retrievers predominantly focus on high-resource languages like English, which impedes their adoption in retrieval scenarios involving other languages. Current approaches circumvent the lack of high-quality labeled data in non-English languages 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 1.7/10. This report is a machine-generated literature synthesis and does not constitute original research.

1 Introduction

This paper examines: ColBERT-XM: A Modular Multi-Vector Representation Model for Zero-Shot Multilingual Information Retrieval. Research question: How does fine-tuning multilingual dense retrievers on BEIR-PL impact zero-shot cross-lingual retrieval accuracy compared to SPLADE and BM25 baselines on other low-resource Slavic languages?.

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 1.7/10.

3 Results

13 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/2305.19840v2>
- <http://arxiv.org/abs/2506.15415v1>
- <http://arxiv.org/abs/2402.15059v1>