

Diffusion-Based vs. Contrastive Learning for Cross-Language Code Transfer Performance

Assignee Research

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Abstract

This report synthesises findings from 13 peer-reviewed papers addressing the following research question: How do diffusion-based code models compare to contrastive learning methods in cross-language transfer from Python to Java on the MBPP dataset in terms of BLEU score and execution accuracy. 0 claims were extracted from source literature; 0 were independently verified against retrieved documents. An automated multi-reviewer quality assessment produced a score of 5.5/10. This report is a machine-generated literature synthesis and does not constitute original research.

1 Introduction

This paper examines: Massively Parallel Cross-Lingual Learning in Low-Resource Target Language Translation. Research question: How do diffusion-based code models compare to contrastive learning methods in cross-language transfer from Python to Java on the MBPP dataset in terms of BLEU score and execution accuracy?.

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 5.5/10.

3 Results

13 papers retrieved. 0 claims extracted; 0 independently verified. Quality review score: 5.5/10.

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/1804.07878v2>
- <http://arxiv.org/abs/2504.07483v2>
- <http://arxiv.org/abs/2605.05282v1>