Oracle-RLAIF vs RLHF for Robust Code Generation Under Adversarial Inputs

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May 31, 2026

Abstract

This report synthesises findings from 13 peer-reviewed papers addressing the following research question: To what extent does Oracle-RLAIF improve the alignment and error correction capabilities of large language models under adversarial input perturbations compared to traditional RLHF methods on code. Reinforcement learning (RL) has become a key technique for enhancing the reasoning abilities of large language models (LLMs), with policy-gradient algorithms dominating the post-training stage because of their efficiency and effectiveness. However, most existing benchmarks. 0 claims were extracted from source literature; 0 were independently verified against retrieved documents. An automated multi-reviewer quality assessment produced a score of 4.7/10. This report is a machine-generated literature synthesis and does not constitute original research.

1 Introduction

This paper examines: Large Language Models Reasoning Abilities Under Non-Ideal Conditions After RL-Fine-Tuning. Research question: To what extent does Oracle-RLAIF improve the alignment and error correction capabilities of large language models under adversarial input perturbations compared to traditional RLHF methods on code generation tasks?.

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 4.7/10.

3 Results

13 papers retrieved. 0 claims extracted; 0 independently verified. Quality review score: 4.7/10.

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/2407.17482v2
- http://arxiv.org/abs/2510.02561v1
- http://arxiv.org/abs/2508.04848v1