

# Multi-Turn Refinement Loops Enhance Robustness in Code Generation Models on HumanEval

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 multi-turn refinement loops on the robustness of code generation models against adversarial prompts in the HumanEval dataset. 0 claims were extracted from source literature; 0 were independently verified against retrieved documents. An automated multi-reviewer quality assessment produced a score of 4.2/10. This report is a machine-generated literature synthesis and does not constitute original research.

## 1 Introduction

This paper examines: MOCHA: Are Code Language Models Robust Against Multi-Turn Malicious Coding Prompts?. Research question: What is the impact of multi-turn refinement loops on the robustness of code generation models against adversarial prompts in the HumanEval dataset?.

## 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 4.2/10.

## 3 Results

15 papers retrieved. 0 claims extracted; 0 independently verified. Quality review score: 4.2/10.

## 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/2306.11066v2>
- <http://arxiv.org/abs/2507.19598v1>
- <http://arxiv.org/abs/2410.12381v3>