How does the precision-recall tradeoff in Gemini 1.5 Pro with an 8M context window compare to Llama3-70B with

Assignee Research

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Abstract

Considerable delays often exist between the discovery of a vulnerability and the issue of a patch. One way to mitigate this window of vulnerability is to use a configuration workaround, which prevents the vulnerable code from being executed at the cost of some lost functionality – but only if one is available. Since program configurations are not specifically designed to mitigate software vulnerabilities, we find that they only cover 25.2% of vulnerabilities. To minimize patch delay vulnerabilities and address the limitations of configuration workarounds, we propose Security Workarounds for

1 Introduction

This paper examines: Talos: Neutralizing Vulnerabilities with Security Workarounds for Rapid Response. Research question: How does the precision-recall tradeoff in Gemini 1.5 Pro with an 8M context window compare to Llama3-70B with retrieval augmentation on the CodeXGLUE security subset when classifying vulnerabilities across 5+ files?.

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 3.5/10.

3 Results

15 papers retrieved. 6 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.

5 Extracted Claims

Claim	Verified	Confidence
Talos can insert an SWRR check into every function in the application for in-place deployment.	×	0.03
In-place SWRR deployment is useful in scenarios where runtime performance is not critical or updating binaries is diffic	×	0.03
Patch-based SWRR deployment requires new binary code to be distributed and installed.	×	0.03
SWRRs are unlikely to cause serious loss of functionality in most cases.	×	0.07
The location of the vulnerability must be known to use an SWRR.	×	0.04
Talos adds on average 2% more lines of source code to implement SWRRs in applications.	×	0.06

References

- http://arxiv.org/abs/1610.06856v1
- http://arxiv.org/abs/1711.00795v1
- http://arxiv.org/abs/2408.15301v2