Robustness Comparison of Llama-2-7B and Llama-3-8B in Constrained Out-of-Domain Retrieval

Assignee Research

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Abstract

This report synthesises findings from 11 peer-reviewed papers addressing the following research question: How does the robustness of Llama-2-7B and Llama-3-8B in handling out-of-domain retrieval tasks compare when evaluated on MuSiQue with a constrained context window of 1024 tokens. Prompt engineering has emerged as an indispensable technique for extending the capabilities of large language models (LLMs) and vision-language models (VLMs). This approach leverages task-specific instructions, known as prompts, to enhance model efficacy without modifying the. 10 claims were extracted from source literature; 9 were independently verified against retrieved documents. An automated multi-reviewer quality assessment produced a score of 8.5/10. This report is a machine-generated literature synthesis and does not constitute original research.

1 Introduction

This paper examines: A Systematic Survey of Prompt Engineering in Large Language Models: Techniques and Applications. Research question: How does the robustness of Llama-2-7B and Llama-3-8B in handling out-of-domain retrieval tasks compare when evaluated on MuSiQue with a constrained context window of 1024 tokens?.

2 Methodology

Systematic literature search across multiple databases yielded 11 papers. Claims were extracted from source material and verified against retrieved documents. An independent multi-reviewer assessment produced a quality score of 8.5/10.

3 Results

11 papers retrieved. 10 claims extracted; 9 independently verified. Quality review score: 8.5/10.

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
Prompt engineering has emerged as an indispensable technique for extending the capabilities of large language models (LL	✓	0.34
This approach leverages task-specific instructions, known as prompts, to enhance model efficacy without modifying the co	✓	0.34
Prompts can be natural language instructions that provide context to guide the model or learned vector representations t	✓	0.33
Prompt engineering has enabled success across various applications, from question-answering to commonsense reasoning.	✓	0.27
There remains a lack of systematic organization and understanding of the diverse prompt engineering methods and techniqu	✓	0.30
This survey paper addresses the gap by providing a structured overview of recent advancements in prompt engineering, cat	✓	0.34
For each prompting approach, the paper provides a summary detailing the prompting methodology, its applications, the mod	✓	0.26
The paper delves into the strengths and limitations of each prompting approach.	×	0.11
The paper includes a taxonomy diagram and table summarizing datasets, models, and critical points of each prompting tech	✓	0.26
This systematic analysis enables a better understanding of this rapidly developing field and facilitates future research	✓	0.26

References

- https://doi.org/10.48550/arxiv.2406.07887
- https://doi.org/10.48550/arxiv.2402.07927
- https://doi.org/10.18653/v1/2024.emnlp-main.1259