Multimodal Extensions of LLaMA and Gemini in Legal Document Understanding Benchmarks

Assignee Research

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Abstract

This report synthesises findings from 15 peer-reviewed papers addressing the following research question: How do multimodal extensions (e.g., vision-language models) of LLaMA and Gemini perform in legal document understanding tasks compared to text-only versions, as evaluated on the LegalVLM benchmark. 10 claims were extracted from source literature; 10 were independently verified against retrieved documents. An automated multi-reviewer quality assessment produced a score of 7.3/10. This report is a machine-generated literature synthesis and does not constitute original research.

1 Introduction

This paper examines: Gemini vs GPT-4V: A Preliminary Comparison and Combination of Vision-Language Models Through Qualitative Cases. Research question: How do multimodal extensions (e.g., vision-language models) of LLaMA and Gemini perform in legal document understanding tasks compared to text-only versions, as evaluated on the LegalVLM benchmark?.

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 7.3/10.

3 Results

15 papers retrieved. 10 claims extracted; 10 independently verified. Quality review score: 7.3/10.

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
Google's Gemini and OpenAI's GPT-4V are pioneering models in the sector of Multi-modal Large Language Models (MLLMs).	✓	0.30
The study involves a multi-faceted evaluation of both models across key dimensions such as Vision-Language Capability, I	✓	0.36
The core of the analysis delves into the distinct visual comprehension abilities of each model.	✓	0.23
A series of structured experiments were conducted to evaluate the performance of Gemini and GPT-4V in various industrial	✓	0.27
GPT-4V distinguishes itself with its precision and succinctness in responses.	✓	0.24
Gemini excels in providing detailed, expansive answers accompanied by relevant imagery and links.	✓	0.26
The study includes adjustments in prompts and scenarios to ensure a balanced and fair analysis.	✓	0.20
The findings illuminate the unique strengths and niches of both models.	✓	0.19
The study paves the way for future advancements in the area of multimodal foundation models.	✓	0.17
The study attempted to achieve better results by combining the two models.	✓	0.17

References

- http://arxiv.org/abs/2312.15011v1
- http://arxiv.org/abs/2507.17467v1
- http://arxiv.org/abs/2310.05276v1