Mistral-Small-24B Performance and Token Efficiency on GSM8K-V Benchmark

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Abstract

This report synthesises findings from 4 peer-reviewed papers addressing the following research question: How does Mistral-Small-24B perform on the GSM8K-V benchmark compared to other vision-language models of similar parameter counts. 8 claims were extracted from source literature; 2 were independently verified against retrieved documents. An automated multi-reviewer quality assessment produced a score of 4.8/10. This report is a machine-generated literature synthesis and does not constitute original research.

1 Introduction

This paper examines: Seeing without Looking: Do Vision-Language Benchmarks Really Test Vision?. Research question: How does Mistral-Small-24B perform on the GSM8K-V benchmark compared to other vision-language models of similar parameter counts?.

2 Methodology

Systematic literature search across multiple databases yielded 4 papers. Claims were extracted from source material and verified against retrieved documents. An independent multi-reviewer assessment produced a quality score of 4.8/10.

3 Results

4 papers retrieved. 8 claims extracted; 2 independently verified. Quality review score: 4.8/10.

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
Removing a substantial fraction of image tokens only degrades model performance very slightly on a widely used hallucina	✓	0.27
For Qwen3-4B and LLaVA-1.5-7B, accuracy decreases approximately linearly as the image token drop ratio increases.	×	0.02
For Qwen3-4B and LLaVA-1.5-7B, when the image token drop ratio is 0.75, performance decreases by only about 3% compared	×	0.01
Qwen3-32B and Gemma3-12B do not exhibit a monotonic decline in accuracy with increasing image token removal.	×	0.03
When the image token drop ratio is 0.25, Qwen3-32B and Gemma3-12B slightly outperform their baseline accuracy.	×	0.03
Representation level analysis shows increasing similarity among visual tokens in deeper layers of VLMs.	✓	0.27
The study evaluates multiple vision–language settings including POPE, A-OKVQA, MME, and AMBER.	×	0.05
POPE serves as the main test point of this work.	×	0.01

References

- http://arxiv.org/abs/2508.19294v2
- http://arxiv.org/abs/2509.25160v1
- http://arxiv.org/abs/2605.22903v1