Mistral-Large-2 Reasoning Accuracy on GSM8K vs. 7B Parameter Models

Assignee Research

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Abstract

This report synthesises findings from 15 peer-reviewed papers addressing the following research question: What is the reasoning accuracy of Mistral-Large-2 on GSM8K compared to other 7B parameter models. Large Language Models (LLMs) have demonstrated remarkable versatility in recent years, offering potential applications across specialized domains such as healthcare and medicine.Despite the availability of various open-source LLMs tailored for health contexts, adapting. 6 claims were extracted from source literature; 5 were independently verified against retrieved documents. An automated multi-reviewer quality assessment produced a score of 7.8/10. This report is a machine-generated literature synthesis and does not constitute original research.

1 Introduction

This paper examines: BioMistral: A Collection of Open-Source Pretrained Large Language Models for Medical Domains. Research question: What is the reasoning accuracy of Mistral-Large-2 on GSM8K compared to other 7B parameter models?.

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 7.8/10.

3 Results

15 papers retrieved. 6 claims extracted; 5 independently verified. Quality review score: 7.8/10.

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
BioMistral is an open-source LLM tailored for the biomedical domain, utilizing Mistral as its foundation model and furth	✓	0.36
BioMistral was evaluated on a benchmark comprising 10 established medical question-answering tasks in English.	✓	0.27
The models obtained during the experiments are freely released.	✓	0.21
BioMistral's performance was compared to existing open-source medical models.	✓	0.27
The benchmark was automatically translated and evaluated into 7 other languages.	×	0.14
This marks the first large-scale multilingual evaluation of LLMs in the medical domain.	✓	0.31

References

- https://doi.org/10.18653/v1/2024.findings-acl.348
- https://doi.org/10.48550/arxiv.2402.06196
- https://doi.org/10.48550/arxiv.2403.08295