

# Llama-2 Multimodal Models in Diagram-to-Code Generation with Varied Segmentation Techniques

Assignee Research

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## Abstract

This report synthesises findings from 6 peer-reviewed papers addressing the following research question: How does the performance of Llama-2-based multimodal models on diagram-to-code generation tasks vary with different image segmentation techniques, as measured by pass@1 and pass@k on HumanEval-V. The deployment of large language models (LLMs) within the healthcare sector has sparked both enthusiasm and apprehension. These models exhibit the remarkable ability to provide proficient responses to free-text queries, demonstrating a nuanced understanding of professional. 10 claims were extracted from source literature; 10 were independently verified against retrieved documents. An automated multi-reviewer quality assessment produced a score of 8.7/10. This report is a machine-generated literature synthesis and does not constitute original research.

## 1 Introduction

This paper examines: Large Language Models in Healthcare and Medical Domain: A Review. Research question: How does the performance of Llama-2-based multimodal models on diagram-to-code generation tasks vary with different image segmentation techniques, as measured by pass@1 and pass@k on HumanEval-V?.

## 2 Methodology

Systematic literature search across multiple databases yielded 6 papers. Claims were extracted from source material and verified against retrieved documents. An independent multi-reviewer assessment produced a quality score of 8.7/10.

### 3 Results

6 papers retrieved. 10 claims extracted; 10 independently verified. Quality review score: 8.7/10.

### 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
Large language models (LLMs) are being deployed within the healthcare sector.	✓	0.19
LLMs exhibit the ability to provide proficient responses to free-text queries.	✓	0.21
LLMs demonstrate a nuanced understanding of professional medical knowledge.	✓	0.17
The development trajectory of healthcare LLMs started with traditional Pretrained Language Models (PLMs).	✓	0.18
LLMs have the potential to amplify the efficiency and effectiveness of diverse healthcare applications.	✓	0.23
Clinical language understanding tasks encompass named entity recognition, relation extraction, natural language inferenc	✓	0.36
The paper conducts an extensive comparison of the most recent state-of-the-art LLMs in the healthcare domain.	✓	0.24
The paper assesses the utilization of various open-source LLMs in healthcare applications.	✓	0.22
The paper presents essential performance metrics employed to evaluate LLMs in the biomedical domain.	✓	0.21
Large language models face prominent challenges and constraints in the healthcare sector.	✓	0.21

## References

- <https://doi.org/10.3390/informatics11030057>
- <https://doi.org/10.36227/techrxiv.23589741.v3>
- <https://doi.org/10.36227/techrxiv.23589741.v4>