

Fine-Tuned Llama-3.1-8B, Mistral-7B, and Qwen3-8B Generalization in Romanized Low-Resource Languages

Assignee Research

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Abstract

This report synthesises findings from 15 peer-reviewed papers addressing the following research question: How does the performance of fine-tuned Llama-3.1-8B, Mistral-7B-v0.1, and Qwen3-8B on Romanized Nepali generalize to other low-resource language variants (e.g., Romanized Hindi or Marathi) when. Romanized Nepali, the Nepali language written in the Latin alphabet, is the dominant medium for informal digital communication in Nepal, yet it remains critically under-resourced in the landscape of Large Language Models (LLMs). This study presents a systematic benchmarking of. 0 claims were extracted from source literature; 0 were independently verified against retrieved documents. An automated multi-reviewer quality assessment produced a score of 5.2/10. This report is a machine-generated literature synthesis and does not constitute original research.

1 Introduction

This paper examines: Benchmarking Linguistic Adaptation in Comparable-Sized LLMs: A Study of Llama-3.1-8B, Mistral-7B-v0.1, and Qwen3-8B on Romanized Nepali. Research question: How does the performance of fine-tuned Llama-3.1-8B, Mistral-7B-v0.1, and Qwen3-8B on Romanized Nepali generalize to other low-resource language variants (e.g., Romanized Hindi or Marathi) when evaluated using cross-domain accuracy metrics?.

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 5.2/10.

3 Results

15 papers retrieved. 0 claims extracted; 0 independently verified. Quality review score: 5.2/10.

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.

References

- <http://arxiv.org/abs/2604.14171v1>
- <http://arxiv.org/abs/2511.22769v1>
- <http://arxiv.org/abs/2404.12618v1>