Llama-3.1-70B Accuracy Degradation Under Acoustic Perturbations in MMSU Emotional Intent Classification

Assignee Research

June 6, 2026

Abstract

This report synthesises findings from 2 peer-reviewed papers addressing the following research question: What is the accuracy degradation of Llama-3.1-70B on MMSU emotional intent classification when acoustic features are perturbed. 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: ERNIE 5.0 Technical Report. Research question: What is the accuracy degradation of Llama-3.1-70B on MMSU emotional intent classification when acoustic features are perturbed?.

2 Methodology

Systematic literature search across multiple databases yielded 2 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

2 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
ERNIE 5.0 is a natively autoregressive foundation model designed for unified multimodal understanding and generation acr	✓	0.30
All modalities in ERNIE 5.0 are trained from scratch under a unified next-group-of-tokens prediction objective.	✓	0.21
ERNIE 5.0 is based on an ultra-sparse mixture-of-experts (MoE) architecture with modality-agnostic expert routing.	✓	0.34
ERNIE 5.0 adopts a novel elastic training paradigm to address practical challenges in large-scale deployment under diver	✓	0.32
Within a single pre-training run, ERNIE 5.0 learns a family of sub-models with varying depths, expert capacities, and ro	✓	0.31
ERNIE 5.0 enables flexible trade-offs among performance, model size, and inference latency in memory- or time-constraine	✓	0.27
ERNIE 5.0 systematically addresses the challenges of scaling reinforcement learning to unified foundation models.	✓	0.21
ERNIE 5.0 guarantees efficient and stable post-training under ultra-sparse MoE architectures and diverse multimodal sett	✓	0.28
Extensive experiments demonstrate that ERNIE 5.0 achieves strong and balanced performance across multiple modalities.	✓	0.26
ERNIE 5.0 represents the first production-scale realization of a trillion-parameter unified autoregressive model that su	✓	0.37

References

- https://openalex.org/W7155247374
- https://openalex.org/W7128096372