

Fine-T2I Resolution Diversity Enhances Text-Image Alignment in Stable Diffusion Models

Assignee Research

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Abstract

This report synthesises findings from 12 peer-reviewed papers addressing the following research question: What is the effect of Fine-T2I's resolution diversity on the alignment between text prompts and generated images in Stable Diffusion as measured by LPIPS score compared to diffusion models trained on. 6 claims were extracted from source literature; 1 was independently verified against retrieved documents. An automated multi-reviewer quality assessment produced a score of 4.3/10. This report is a machine-generated literature synthesis and does not constitute original research.

1 Introduction

This paper examines: Fine-T2I: An Open, Large-Scale, and Diverse Dataset for High-Quality T2I Fine-Tuning. Research question: What is the effect of Fine-T2I's resolution diversity on the alignment between text prompts and generated images in Stable Diffusion as measured by LPIPS score compared to diffusion models trained on fixed-resolution datasets?.

2 Methodology

Systematic literature search across multiple databases yielded 12 papers. Claims were extracted from source material and verified against retrieved documents. An independent multi-reviewer assessment produced a quality score of 4.3/10.

3 Results

12 papers retrieved. 6 claims extracted; 1 independently verified. Quality review score: 4.3/10.

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 |
|--|----------|------------|
| Fine-tuning LlamaGen on Fine-T2I achieves an 80.7% win rate for visual quality compared to a counterpart without further | × | 0.13 |
| Fine-tuning LlamaGen on Fine-T2I achieves a 65.3% win rate for text-image alignment. | ✓ | 0.15 |
| Fine-T2I boosts the visual quality the most, possibly due to the extremely high aesthetic quality of the dataset. | × | 0.11 |
| Models fine-tuned on Fine-T2I generate much better results than those fine-tuned on T2I-2M and BLIP3o-60k datasets on bo | × | 0.12 |
| Fine-T2I enhances controllability on standard automatic protocols as shown by improvements in GenEval for both LlamaGen | × | 0.04 |
| Fine-T2I leads to generations that look more natural and coherent, with cleaner local details and fewer distracting arti | × | 0.04 |

References

- <http://arxiv.org/abs/2605.30038v1>
- <http://arxiv.org/abs/2211.12112v1>
- <http://arxiv.org/abs/2602.09439v1>