Diffusion-Driven vs. GAN-Based Data Generation for Few-Shot Tabular Foundation Models

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Abstract

This report synthesises findings from 12 peer-reviewed papers addressing the following research question: How does the diffusion-driven data generation approach in AeroGen compare to GAN-based methods in terms of few-shot classification accuracy for tabular foundation models when evaluated on. 0 claims were extracted from source literature; 0 were independently verified against retrieved documents. An automated multi-reviewer quality assessment produced a score of 3.7/10. This report is a machine-generated literature synthesis and does not constitute original research.

1 Introduction

This paper examines: Diffusion and Flow Matching Models for Tabular Data: A Survey. Research question: How does the diffusion-driven data generation approach in AeroGen compare to GAN-based methods in terms of few-shot classification accuracy for tabular foundation models when evaluated on heterogeneous structured 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 3.7/10.

3 Results

12 papers retrieved. 0 claims extracted; 0 independently verified. Quality review score: 3.7/10.

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.

References

- http://arxiv.org/abs/2104.09630v2
- http://arxiv.org/abs/2504.20900v1
- http://arxiv.org/abs/2502.17119v2