

How does the performance of TSDiff compare to other unconditional time series diffusion models (e.g., TSP) on

Assignee Research

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Abstract

Demand forecasting in competitive, uncertain business environments requires models that can integrate multiple evaluation perspectives rather than being restricted to hyperparameter optimization based on a single metric. This traditional approach tends to prioritize one error indicator, which can bias results when metrics provide contradictory signals. In this context, the Hierarchical Evaluation Function (HEF) is proposed as a multi-metric framework for hyperparameter optimization that integrates explanatory power (R²), sensitivity to extreme errors (RMSE), and average accuracy (MAE). The per

1 Introduction

This paper examines: Hierarchical Evaluation Function: A Multi-Metric Approach for Optimizing Demand Forecasting Models. Research question: How does the performance of TSDiff compare to other unconditional time series diffusion models (e.g., TSP) on the Monash benchmark datasets in terms of forecasting accuracy and sample diversity?.

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 1.7/10.

3 Results

12 papers retrieved. 0 claims extracted; 0 independently verified. Quality review score: 1.7/10.

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/2401.03006v2>
- <http://arxiv.org/abs/2508.13057v6>
- <http://arxiv.org/abs/2307.11494v3>