

Document Validation Report

for AutoTM



Correspondence: Yes

Percentages: 60.0%

Conclusion:

Core elements promised in the documentation—GA-based and Bayesian hyper-parameter search, topic-model training with BigARTM, fitness evaluation, surrogate models, Nelder-Mead refinement, distributed Celery execution—are present in the codebase. Key classes (GA, FitnessEstimator, TopicModel, AutoTM) and helper utilities for preprocessing, metrics and artifact logging match the described architecture and experiment workflow. However, several critical pieces are stubs or partially implemented (dummy fitness evaluators that return random scores, NotImplemented sections in mutation/selection variants, placeholder dataset loaders, missing real evaluation scripts). Some metrics and preprocessing steps are defined but not fully wired into the main loops, and reproduction of the exact reported results would require external resources (BigARTM binaries, datasets, MLflow/MongoDB, Celery cluster) and additional implementation. Therefore the repository substantially reflects the documented design but cannot fully reproduce the claimed experimental results out-of-the-box.