

Artifact for Paper (A New Approach for Active Automata Learning Based on Apartness)^{*}

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This document presents the artifact submitted for the paper “A New Approach for Active Automata Learning Based on Apartness.” The artifact contains an implementation (called “automata-lib”) of the $L^\#$ learning algorithm introduced in the paper, alongside the benchmark models. We would like to apply for the “Available” badge.

Availability

All benchmark models are available on the “Automata Wiki”¹. The artifact is available on Zenodo², while an up-to-date implementation (with improvements to code-quality) can be found online³.

Experiments and Results

For setup and usage instructions, please refer to README.txt in the zip. We note that due to the randomisation of the equivalence checking process, there might be minor variations in the plots obtained. For benchmarking, each experiment was repeated 100 times (sequentially) on a linux machine running on a Ryzen 3700X with 32Gb of RAM; for “lighter” machines, we recommend repeating each experiment 10 times (which is the default).

Remarks

We welcome contributions/suggestions for our software. “automata-lib” is released under either the MIT or Apache-2.0 license. Note, “automata-lib” is a working title, it has nothing to do with “AutomataLib”⁴.

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¹ <https://automata.cs.ru.nl>

² DOI: 10.5281/zenodo.5643157

³ <https://gitlab.science.ru.nl/bharat/automata-lib>

⁴ <https://github.com/LearnLib/automatalib>