

Benchmark for Active Learning of Variability-Intensive Systems

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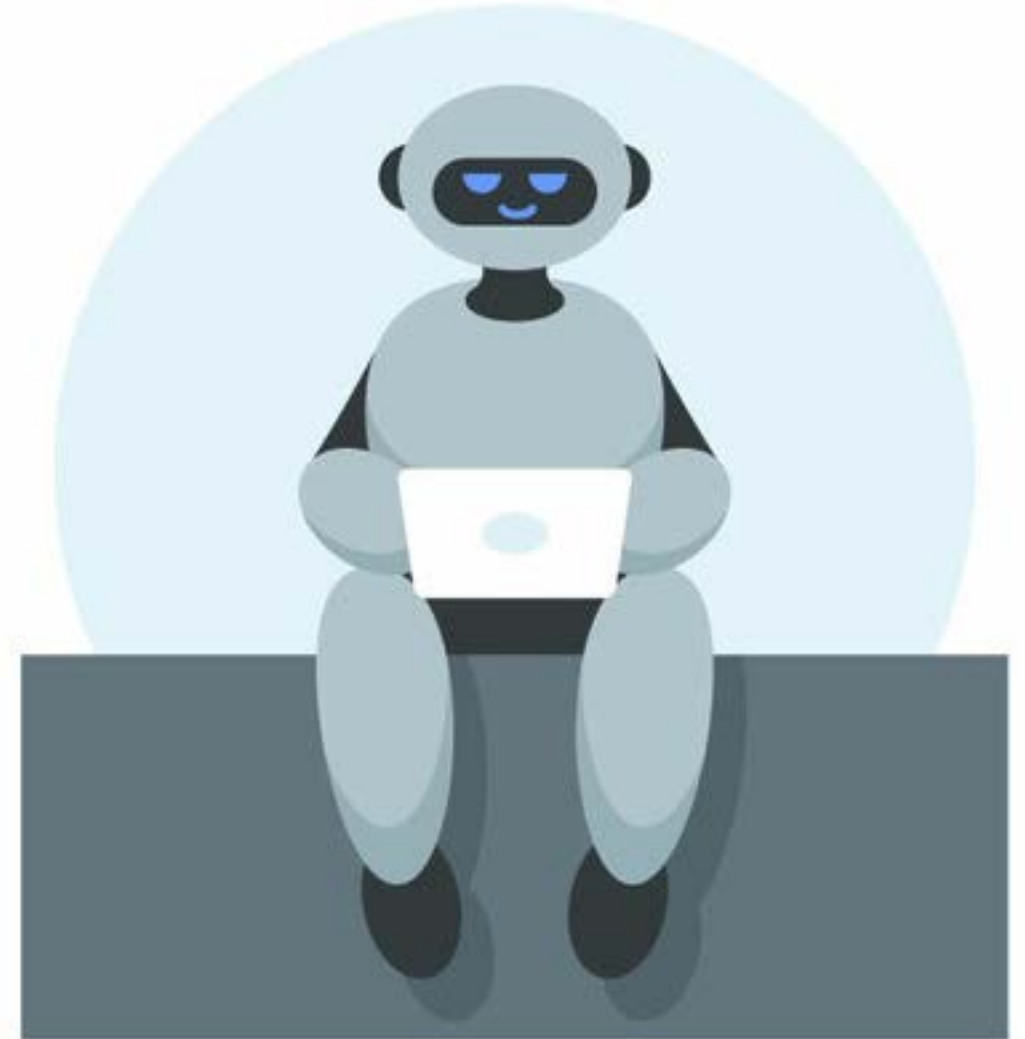
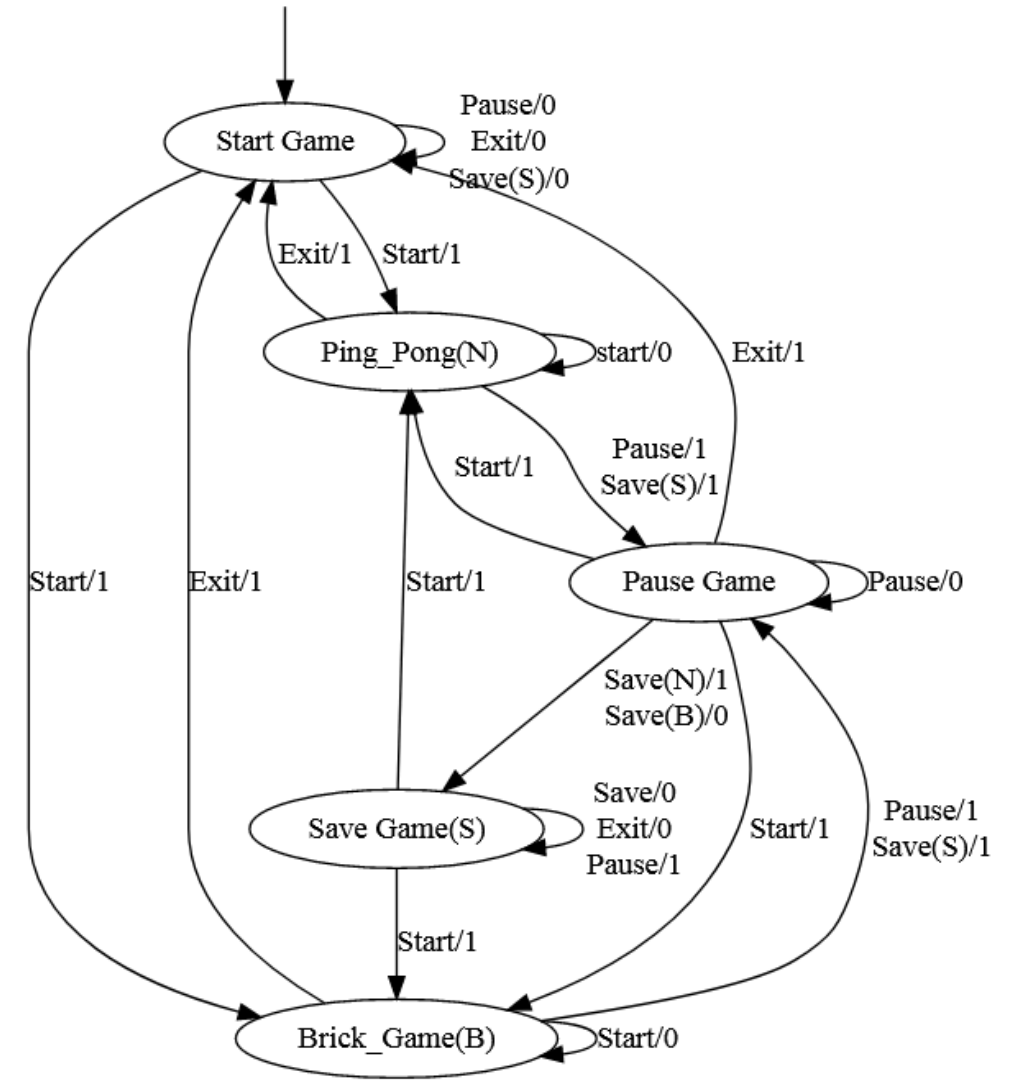
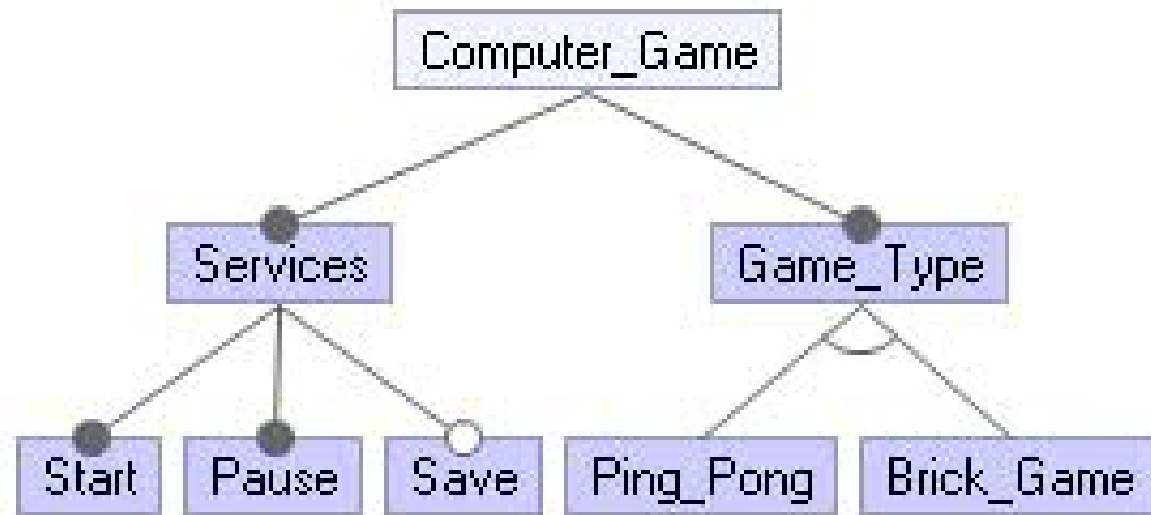


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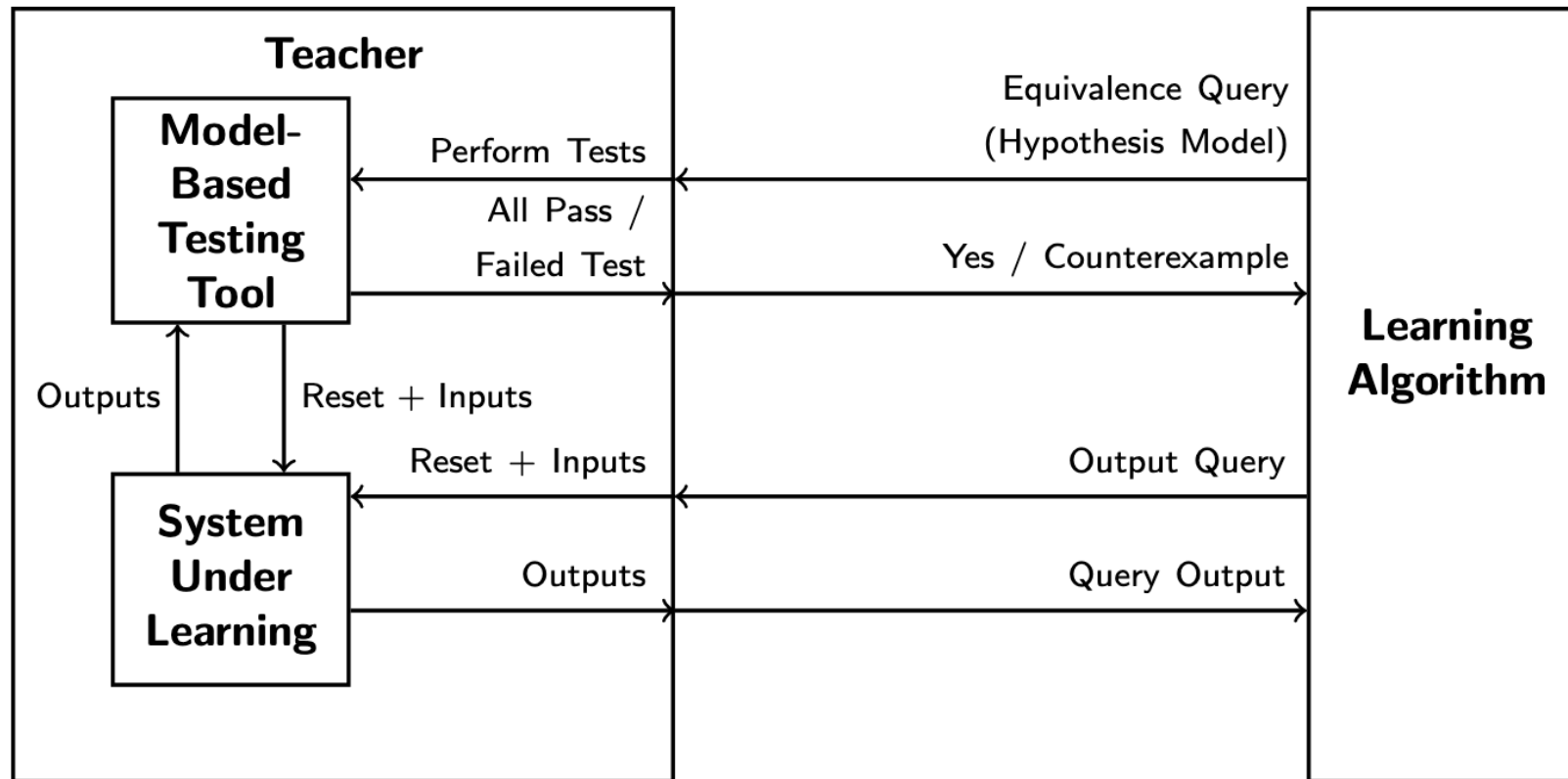
THE MESSAGE

Our community needs a benchmark for learning behavioural models of software product line.

Structural vs. Behavioural Models



Active Learning



[Dana Angluin. Learning regular sets from queries and counterexamples.]

Metrics

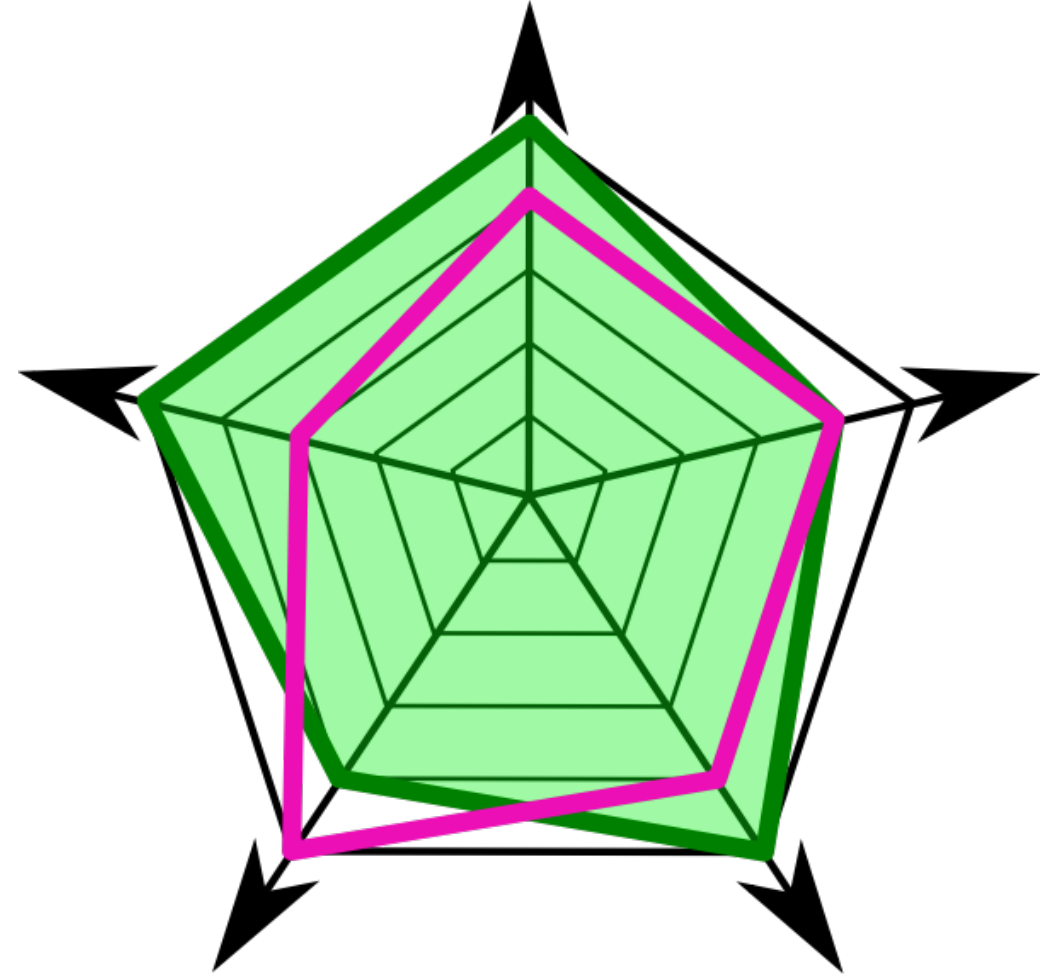
- Rounds of learning
- Number of queries
- Total input symbols
- Convergence
- Sample size vs. accuracy



Requirements on the Benchmark

- Variability model
- Behavioral model:
 - FSM of all valid configurations; or
 - Featured FSM and a derivation tool

[V. Hafemann Fragal, A. Simão, and M.R. Mousavi.
Hierarchical featured state machines. SCP. 171: 67-88, 2019.]



THANK YOU!

Our community needs a **benchmark for learning behavioural models of software product line.**

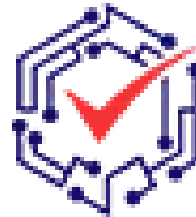
ACKNOWLEDGMENTS



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