Learn Your Program

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Goal: a synthesis framework for first-order LTL formulas

Spec: \((x = 0) \land \text{Globally}( (x = 0) \rightarrow \text{Finally}(x > 0))\)

Program:

1: \(x := 0\)
2: \(x := x + 1\)
3: while (true)
4: \(x := x + 1\)
Goal: a synthesis framework for first-order LTL formulas

• Infere program states:
  symbolic automata learning

• Infere program statements:
  from spec & using abduction