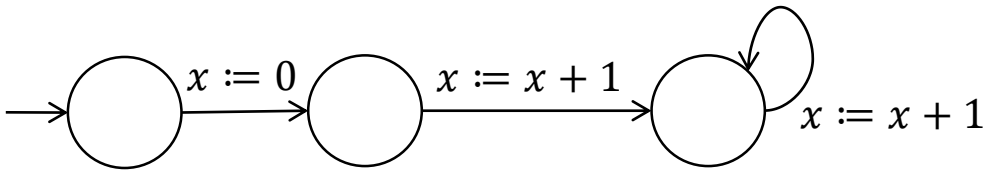
Learn Your Program

Hadar Frenkel, Orna Grumberg, and Sarai Sheinvald
Computer Science Department, Technion – Israel Institute of Technology

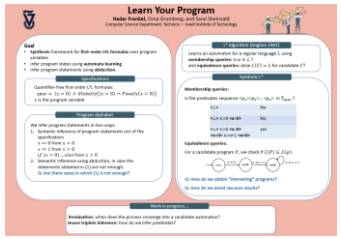
Goal: a synthesis framework
for first-order LTL formulas

Spec: $(x = 0) \wedge Globally\big((x = 0) \rightarrow Finally(x > 0)\big)$

Program:




```
1: x:=0
2: x:= x+1
3: while (true)
4:    x:=x+1
```



Learn Your Program

Hadar Frenkel, Orna Grumberg, and Sarai Sheinvald
Computer Science Department, Technion – Israel Institute of Technology

Goal: a synthesis framework
for first-order LTL formulas

- Infere program states:
  symbolic automata learning

- Infere program statements:
  from spec & using abduction