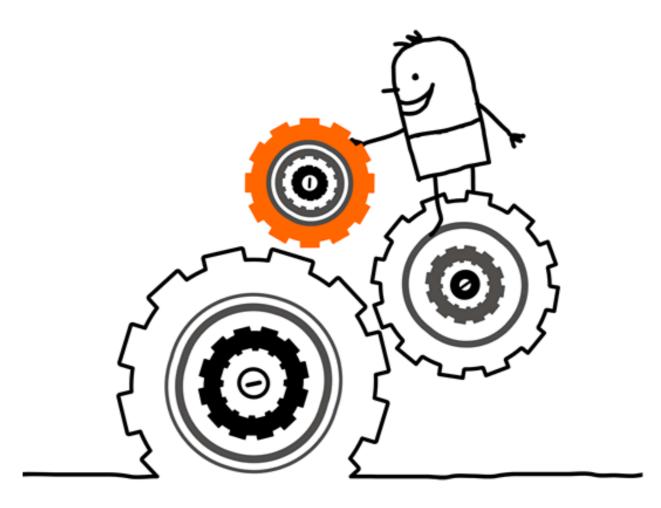
Program Synthesis

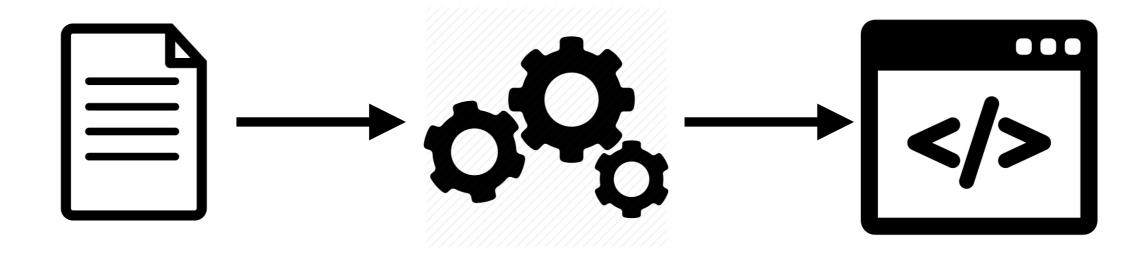
Seminar in Summer Semester 2020



What is program synthesis?







Where can we use it? Compiling declarative specification Cache coherence protocols Program repair & fault tolerance Client code String manipulating functions Data structure Database algorithms Educatio

[1] R.Bodik, B.Jobstmann. Algorithmic program synthesis: introduction. Int J Softw Tools Technol Transfer (2013) 15: 397

Program Synthesis

Reactive

Spec: Temporal Logic formula

Result: automata describing reactive system

Functional

Spec: different variations

Result: program code

Find a correct program from the candidate space

Organisation

- Block seminar: March 30 April 3, time TBD
- Every session: 2-3 papers presented + discussion round
- Read ca.15 papers (in total)

Expected Deliverables

• Presentation: 25 minutes

submit slides afterwards

• Final report: a comprehensive survey of all papers discussed during the seminar

7-9 pages excluding references

use provided Tex template

Questionary

https://forms.gle/WrTJADHau44C5KRY7

link is available on our website https://www.in.tum.de/en/i02/teaching/summersemester-20/seminars/program-synthesis/