

Aspiring PI Info:

- Milos Gligoric
- Associate Professor
- The University of Texas at Austin



Research interests:

- Software engineering and formal methods
- Software testing
 - automated test generation
 - test cost reduction
- Lightweight formal methods (runtime verification)
- Declarative specifications and programming

Current Project(s)

- Programming via declarative graph queries (OGO)
 - blends imperative and declarative style
 - sees entire program heap as a graph
 - powerful for writing assertions
- Inline tests
 - enables writing tests for a single code line
 - generates tests automatically
 - e.g., checking validity of a regexp

Project Idea(s)...

- RVGraph
 - graph-based runtime verification
 - time-travel specifications
 - runtime verification on HW accelerators
 - development tools
 - `(c:Trace {method: next"})<-[.:prev]-(p:Trace) return p.method = "hasNext"`
- Increase productivity of software engineers
- Immediately applicable in practice due to the nature of languages used and targeted domains (e.g., monitoring, assertions, debugging)
- Integration into “Programming paradigms” course
- Involvement of undergraduate students

... and possible collaborators sought

- Always excited to collaborate with people (with complementary expertise and interests)
- Formal Methods
- Field (collaborator: Christopher J. Rossbach)

