Michael B. James

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Research Interests

I am interested in *Program Synthesis* and *Language Design*. I think of *Programming Languages* as an interface to express intent. I want to build systems and tools to help programmers, expert and novice alike, complete their task faster and safer.

Education

University of California, San Diego
Ph.D., Computer Science, 2018-*present*.
Advisor: Nadia Polikarpova
Fields: Programming Languages, Program Synthesis

Tufts University
B.S., Computer Science, 2015.

Experience

Software Engineer II
Jana Mobile, Boston, Massachusetts, Feb 2017 - Jun 2018
2018   Created mobile anti-fraud mechanisms and data collection streams
2017   managed data scientists' data collection APIs

Software Engineer I
Uber Technologies, San Francisco, Jul 2015 - Dec 2016
2016   Lead team migration to golang, through anti-fraud miroservice
2015   Owned `business.uber.com`. Migrated to React, using FRP styles

Elm Intern
Prezi, Budapest, Hungary, Summer 2014
Mentor: Evan Czaplicki
Built interactive, time-traveling debugger for Elm-lang.

Publications

Program Synthesis by Type-Guided Abstraction Refinement. Zheng Guo, Michael James, David Justo, Jiaxiao Zhou, Ziteng Wang, Ranjit Jhala, Nadia Polikarpova *47th ACM SIGPLAN Symposium on Principles of Programming Languages* (POPL 2020). January 2020.

Teaching

Graduate Teaching Assistant
UC San Diego, Fall 2019
Supervisor: Nadia Polikarpova
Course: undergraduate intro-to-programming languages course.

Undergraduate Teaching Assistant
Tufts University, Fall 2014
Supervisor: Kathleen Fisher
Course: undergraduate intro-to-programming-languages

Talks

2019   **Component-based Type Driven Synthesis**
Location: University of California, San Diego