Michael B. James

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Research Interests I am interested in Programming Languages in the context of Program Synthesis and Human-Computer Interactions. Languages and their tools are how programmers bridge the gap between their goal and their system's abilities. I want to build systems to help programmers, expert and novice alike, bridge that gap to complete their task faster, safer, and more simply.

Education University of California, San Diego

M.S., Computer Science, 2021.

Ph.D., Computer Science, 2018-present.

Advisor: Nadia Polikarpova

Fields: Programming Languages, Program Synthesis, Human-Computer

Interactions

Tufts University

B.S., Computer Science, 2015.

 $\textbf{Publications} \quad \textbf{Program Recognition in Synthesis}. \ \textbf{Michael B. James, Nadia Polikarpova}.$ PLATEAU. November 2021.

> Digging for Fold: Synthesis-aided API Discovery for Haskell. Michael B. James, Zheng Guo, Ziteng Wang, Shivani Dosh, Hila Peleg, Ranjit Jhala, Nadia Polikarpova OOPSLA. November 2020.

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

Work Experience

Software Engineer II

Jana Mobile, Boston, Massachusetts, Feb 2017 - Jun 2018

Software Engineer I

Uber Technologies, San Francisco, Jul 2015 - Dec 2016

Elm Intern

Prezi, Budapest, Hungary, Summer 2014 Mentor: Evan Czaplicki

Talks Program Recognition in Synthesis

2021 - PLATEAU 2021 (Carnegie Mellon University)

Digging for Fold: Synthesis-aided API Discovery for Haskell

2021 - OOPSLA 2021 (Chicago) 2020 - OOPSLA 2020 (virtual)

Component-based Type Driven Synthesis

2019 - University of California, San Diego

Teaching Graduate Teaching Assistant

Fall 2019, Spring 2021. UC San Diego. 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

Service ICFP AEC 2021

ICFP AEC 2020