# 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 work to make *usabilty* automatic program generation tools to bridge that gap, allowing programmers complete their task faster, safer, and more simply.

## Education

**University of California, San Diego**
Ph.D., Computer Science, 2018-*present*.
M.S., Computer Science, 2021.
Advisor: Nadia Polikarpova
Fields: Programming Languages, Program Synthesis, Human-Computer Interactions

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

## Publications

**Grounded Copilot: How Programmers Interact with Code-Generating Models**. Shraddha Barke*, Michael B. James*, Nadia Polikarpova. *OOPSLA*. October 2022.

**Program Recognition in Synthesis**. 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

**Research Intern**
Microsoft, Remote, Summer 2022
Mentors: Arjun Raghakrishna, Gustavo Soares

**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

*Equal Work

## 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 2023. UC San Diego.
Supervisor: Nadia Polikarpova
Course: graduate-level programming languages.

**Graduate Teaching Assistant**
Spring 2022, Spring 2021, Fall 2019. UC San Diego.
Supervisor: Nadia Polikarpova
Course: undergraduate intro-to-programming languages.

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

## Service

PLDI Student Volunteer Co-Chair 2023-24
PLDI Student Volunteer 2022
ICFP Artifact Evaluation Committee 2021
ICFP Artifact Evaluation Committee 2020