

Zheng Guo

Research Fellow · University of Michigan, Ann Arbor

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EDUCATION

PhD in Computer Science 2019 – 2024

University of California San Diego, La Jolla, USA

MSc in Computer Science 2017 – 2019

University of California San Diego, La Jolla, USA

BEng in Software Engineering 2013 – 2017

Shanghai Jiao Tong University, Shanghai, China

PUBLICATIONS

Full and up-to-date list on [Google Scholar](#).

Hierarchical search of tree tensor networks for high-dimensional data ([Journal of Computational Physics 2026](#))

Guo, Zheng and Deshpande, Aditya and Wang, Xinyu and Kiedrowski, Brian C. and Gorodetsky, Alex A.

Presynthesis: Towards Scaling Up Program Synthesis with Finer-Grained Abstract Semantics ([PLDI 2026](#))

Dong, Rui and Wu, Qingyue and Ding, Danny and Guo, Zheng and Ji, Ruyi and Wang, Xinyu

Automated Lifting for Cloud Infrastructure-as-Code Programs ([AIOps 2025 \(ICSE Workshop\)](#))

Peng, Jingjia and Qiu, Yiming and Kon, Patrick Tser Jern and Zhao, Pinhan and Huang, Yibo and Guo, Zheng and Wang, Xinyu and Chen, Ang

Tensor Network Structure Search Via Canonical Dimension Tree Enumeration ([arXiv 2025](#))

Guo, Zheng and Deshpande, Aditya and Kiedrowski, Brian and Wang, Xinyu and Gorodetsky, Alex

Searching Entangled Program Spaces ([ICFP 2022](#))

Koppel, James and Guo, Zheng and de Vries, Edsko and Solar-Lezama, Armando and Polikarpova, Nadia

Type-Directed Program Synthesis for RESTful APIs ([PLDI 2022](#))

Guo, Zheng and Cao, David and Tjong, Davin and Yang, Jean and Schlesinger, Cole and Polikarpova, Nadia

Digging for Fold: Synthesis-Aided API Discovery for Haskell ([OOPSLA 2020](#))

James, Michael B. and Guo, Zheng and Wang, Ziteng and Doshi, Shivani and Peleg, Hila and Jhala, Ranjit and Polikarpova, Nadia

Program Synthesis by Type-Guided Abstraction Refinement ([POPL 2020](#))

Guo, Zheng and James, Michael and Justo, David and Zhou, Jiaxiao and Wang, Ziteng and Jhala, Ranjit and Polikarpova, Nadia

EXPERIENCE

Postdoctoral Researcher 2024 – present

Electrical Engineering and Computer Science, University Of Michigan

Mentored by Professors Xinyu Wang, Alex Gorodetsky, and Brian Kiedrowski, working on accelerating computational science (AI for science).

Software Engineering Intern 2022 – 2022

Google Inc.

Worked at Google Labs on a project for program synthesis.

Compiler Engineer Intern 2020 – 2020

MathWorks

Worked at HDL toolbox team on a project for code generation.

TEACHING

EECS 481: Software Engineering Winter 2026

Co-Instructor, University of Michigan, Ann Arbor

AI for Scientists and Engineers Summer Academy 2025, 2026

Instructor, MIDAS, University of Michigan

CSE 130: Programming Languages 2020 – 2023

Teaching Assistant, University of California San Diego

CSE 291: Program Synthesis Winter 2021

Teaching Assistant, University of California San Diego

CSE 231: Advanced Compilers Winter 2019

Teaching Assistant, University of California San Diego

COGS 18: Introduction to Python Summer 2019

Teaching Assistant, University of California San Diego

CSE 230: Programming Languages Fall 2018

Teaching Assistant, University of California San Diego

HONORS & AWARDS

Eric and Wendy Schmidt AI in Science Postdoctoral Fellowship 2024

Schmidt Sciences / MIDAS, University of Michigan

ACM SIGPLAN PAC Grant for POPL 2020 2020

ACM SIGPLAN

PLMW Scholarship for ICFP 2018 2018

ACM SIGPLAN PLMW

SERVICE

Artifact Evaluation Committee 2022

POPL, PLDI

Artifact Evaluation Committee 2021

ICFP, PLDI, CAV

