Sarah Canto Hyatt

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Education

PhD	**University of California, Santa Barbara**, Computer Science	In Progress
MS	**California State University, Northridge**, Computer Science	Dec 2023
BS	**California State University, Northridge**, Computer Science	May 2021

- Minor: Mathematics

Publications

Mutation-Based Fuzzing of the Swift Compiler with Incomplete Type Information — April 2025

Sarah Canto Hyatt, Kyle Dewey

International Conference on Software Testing, Verification and Validation (ICST) 2025

publication ↗

Research Experience

University of California, Santa Barbara, Graduate Student Researcher — Santa Barbara, CA — Sep 2024 – Present

- Conducting research under the supervision of Ben Hardekopf, PhD.
- Researching breakthroughs in metamorphic and mutation-based fuzzing applied to statically typed languages and EDA tools for hardware design.
- Assisting a project involving automatically generating complex and interesting inputs for a software system under test.
- Assisting a project involving memory safety guarantees in unsafe Rust code.

California State University, Northridge, Research Assistant — Northridge, CA — Aug 2022 – Dec 2023

- Conducted research under the supervision of Kyle Dewey, PhD.
- Developed a type-aware mutation-based black-box fuzzer for the Swift programming language.
- Above work was published in ICST 2025

Teaching Experience

University of California, Santa Barbara, Teaching Assistant — Santa Barbara, CA — Sep 2024 – Present

- Served as a TA for CMPSC 8: Introduction to Computer Science (Winter'25 and Summer'25)
- Served as a TA for CMPSC 24: Problem Solving with Computers 2 (Spring'25)
- Served as a TA for CMPSC 16: Problem Solving with Computers 1 (Fall'24)

California State Univeristy, Norhtridge, Instructional Student Assistant — Northridge, CA — Jan 2021 – Dec 2023

- Served as an instructional assistant for the following CS courses:
  - COMP 110/L: Introduction to Algorithms and Programming (Spring'23, Fall'23)
  - COMP 182/L: Data Structures and Program Design and Lab (Fall'22, Spring'23)
  - COMP 282: Advanced Data Structures (Fall'22)
  - COMP 333: Concepts of Programming Languages (Fall'23)
  - COMP 482: Algorithm Design and Analysis (Fall'23)
- Hosted individual and group tutoring for the folloring CS courses:

- COMP 110/L: Introduction to Algorithms and Programming (Spring'21)
- COMP 122/L: Computer Architecture and Assembly Language and Lab (Spring'21, Fall'21, Spring'22)
- COMP 182/L: Data Structures and Program Design and Lab (Spring'21, Spring'22)
- COMP 282: Advanced Data Structures (Spring'21)