Last updated in February 2025

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

preprint

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.
- Leading a project involving fuzzing statically typed languages.
- Assisting a project involving 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.
- Work publised in ICST 2025

Teaching Experience

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

- Serving as a TA for CMPSC 8: Introduction to Computer Science (Winter'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)