

Hannah Potter

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RESEARCH EXPERIENCE

PLSE GROUP | UNIVERSITY OF WASHINGTON

Fall 2021 - present | Seattle, WA

Advised by Professor René Just. Research Assistant position for Summer 2022 and Winter/Spring/Summer/Autumn 2023, Spring 2024, and Winter/Spring 2025. Continued collaboration on Hazel Tutor project (see below) with Professor Cyrus Omar, focusing on contextualized programming language documentation; collaborated with one Master's student. Additionally worked on pull request change decomposition project, collaborating with one PhD and one undergraduate student. Investigated strategies to make it easier for developers and students to understand mutants for mutation testing. Currently investigating strategies to improve developer understanding of code changes, including pull requests, via code tours.

FUTURE OF PROGRAMMING LAB | UNIVERSITY OF MICHIGAN

Fall 2019 - Summer 2021 | Ann Arbor, MI

Worked with Professor Cyrus Omar. Assistant in Research position for Summer 2020 and 2021. Led Hazel Tutor project which is a programming tutor for Hazel, a live functional programming environment with holes. Collaborated with four undergraduate students working on the project.

RESEARCH ASSISTANT | UNIVERSITY OF UTAH

January - August 2019 | Salt Lake City, UT

Worked with Professor Eliane Wiese. Worked on a project for detecting poor coding patterns commonly seen in the work of early CS students by extending an existing code pattern matching tool.

PAPERS & TALKS

Evaluating the Impact of Scaffolding and Visualizations for Mutation Testing Exercises in Software Engineering Education

Hannah Potter, Ana C. R. Paiva, Domenico Amalfitano, Anna Rita Fasolino, Porfirio Tramontana, & René Just

Paper & Talk

To appear in FSE 2025

Equivalent Mutants in the Wild: Identifying and Efficiently Suppressing Equivalent Mutants for Java Programs

Benjamin Kushigian, Samuel J. Kaufman, Ryan Featherman, Hannah Potter, Ardi Madadi, & René Just

Paper

Published in ISSTA 2024

<https://doi.org/10.1145/3650212.3680310>

Live Pattern Matching with Typed Holes

Yongwei Yuan, Scott Guest, Eric Griffis, Hannah Potter, David Moon, & Cyrus Omar

Paper

Published in OOPSLA @ SPLASH 2023

*Best Paper Award

<https://doi.org/10.1145/3586048>

Contextualized Programming Language Documentation

Hannah Potter, Ardi Madadi, René Just, & Cyrus Omar

Paper & Talk

Published in Onward! Papers @ SPLASH 2022

<https://doi.org/10.1145/3563835.3567654>

Hazel Tutor: Guiding Novices Through Type-Driven Development Strategies

Hannah Potter & Cyrus Omar

Paper & Talk

Presented at Human Aspects of Types and Reasoning Assistants Workshop (HATRA) @ SPLASH 2020

<https://hazel.org/hazeltutor-hatra2020.pdf>

INDUSTRY EXPERIENCE

LUCID SOFTWARE INC. | SOFTWARE ENGINEER INTERN

Summer 2016, 2017, 2018, 2019 | South Jordan, UT

Developed front-end automated testing using Selenium in Scala. Fixed bugs and added features for both LucidPress and LucidChart as a full stack developer. Worked on the front-end using the Angular framework in HTML, Less, and Typescript. Worked on back-end in Scala.

TEACHING EXPERIENCE

CSE TEACHING ASSISTANT | UNIVERSITY OF WASHINGTON

Autumn 2021 - Spring 2022, Autumn 2022, Autumn 2024 | Seattle, WA

Led discussions, conducted help hours for students and test review, and graded assignments and tests. Additionally assisted in the development and refinement of course exercises. Was a TA for Compiler Construction (CSEP 501), Software Design and Implementation (CSE 331), Software Engineering (CSE 403), Advanced Topics in Software Systems (CSEP 504), and Building Data Analysis Pipelines (CSEP 590).

ENGINEERING TEACHING CONSULTANT | UNIVERSITY OF MICHIGAN

Fall 2020, Winter 2021 | Ann Arbor, MI

Consult with student instructors about good teaching practices and conduct midterm student feedback reviews. Led cohort of new student instructors through discussions of good teaching practices, including inclusive teaching.

EECS GRADUATE STUDENT INSTRUCTOR | UNIVERSITY OF MICHIGAN

Winter/Fall 2020, Winter 2021 | Ann Arbor, MI

Developed assignment and discussion course materials. Led discussions, conducted help hours for students, and graded assignments and tests. Was a GSI for Programming Languages (EECS 490) twice and Advanced Programming Languages (EECS 590) once.

EECS TUTOR | UNIVERSITY OF MICHIGAN

Fall 2019 | Ann Arbor, MI

Held open tutoring hours for Cognitive Science majors who were taking EECS courses.

COMPUTER SCIENCE TA | UNIVERSITY OF UTAH

Fall 2017, Spring/Fall 2018, Spring 2019 | Salt Lake City, UT

Led labs, conducted help hours for students, conducted test reviews, graded assignments and tests. Was a TA for Software Practice (CS 3500) twice, Compilers (CS 4470) once, and Introduction to Object-Oriented Programming (CS 1410) once.

ACADEMIC EXPERIENCE

UNIVERSITY OF WASHINGTON | PHD IN COMPUTER SCIENCE AND ENGINEERING

Expected Graduation June 2027 | Seattle, WA

GPA: 3.91 / 4.0 • MS in Computer Science and Engineering (2023)

UNIVERSITY OF MICHIGAN | MSE IN COMPUTER SCIENCE AND ENGINEERING

Graduated Spring 2021 | Ann Arbor, MI

GPA: 4.0 / 4.0

UNIVERSITY OF UTAH | HONORS BS IN COMPUTER SCIENCE

Graduated May 2019 | Salt Lake City, UT

Magna Cum Laude • Dean's List (All Semesters) • Cum. GPA: 3.982 / 4.0 • Major GPA: 4.0 / 4.0

SERVICE & OUTREACH EXPERIENCE

PHD K-12 OUTREACH COORDINATOR | STAFF ASSISTANT, UNIVERSITY OF WASHINGTON

Fall 2022 - present | Seattle, WA

- Lead efforts to organize UW CSE PhD student outreach efforts to K-12 students in the greater Seattle area. Includes organizing and hosting regular organizational meetings and workshops.
- Co-lead efforts to create a centralized Allen School High School Summer Internship Program for Summer 2025, including organizing and hosting regular meeting for labs participating in the program to create applications, rubrics, and procedures for application review.
- Organized researcher involvement in:
 - UW CSE participation in CS Ed Week 2022 and 2023, including virtual events and an open house with lab activities. In 2022, there were 93 attendees across 7 virtual events and an estimated 250 attendees at the open house. In 2023,

there were 231 attendees (128 unique) across all virtual events and approximately 200 attendees at the open house. In 2024, there were 87 attendees across all virtual events and approximately 75 attendees at the open house.

- Admitted Student Day for 2023, where undergraduates directly admitted to the Paul G. Allen School of Computer Science and Engineering and their families can come to campus. The open house included lab activities.
- Lab activities for field trips to the Allen School.

STUDENT VOLUNTEER FOR ECOOP/ISSTA 2023 | IN-PERSON

July 2023 | Seattle, WA

STUDENT VOLUNTEER FOR SPLASH 2022 | IN-PERSON

December 2022 | Auckland, New Zealand

UNDERGRADUATE STUDENT ADVISORY COMMITTEE FOR THE SCHOOL OF COMPUTING |

MEMBER AND CHAIR, UNIVERSITY OF UTAH

Fall 2016 - Spring 2019 | Salt Lake City, UT

- Planned events, served as representatives for students to faculty/administration, participated in retention-promotion-tenure reviews of professors.
- Specifically focused on breaking down barriers between professors and students and building an inclusive and supportive environment for all CS undergraduate students.
- Served as Chair for the 2018-2019 academic year.
- Professor Ryan Stutsman served as faculty advisor all years.

AWARDS RECEIVED

- 2nd Place in ECOOP/ISSTA Student Research Competition 2023
- NSF GRFP Honorable Mention 2021
- 3rd Place Team for Senior Capstone Project 2019
- 3rd Place Team in Lucid Software Employee Hackathon 2017
- National Merit Scholar 2015
- University of Utah President's Scholarship 2015