

Amy Wei

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Education

- PhD** **University of Massachusetts Amherst**, Computer Science Amherst, MA
 • MS/PhD student, advised by Dr. Yuriy Brun Sept 2026 – Sept 2026
- BSE** **University of Michigan**, Computer Science, Minor in Mathematics Ann Arbor, MI
 • GPA: 3.8/4.0, *summa cum laude* with Engineering Honors Aug 2022 – May 2026
 • Selected Awards: Barry Goldwater Scholarship

Publications

- Sweat the Details: Exercise Breaks and AI Assistance in Code Summarization** Sept 2026
 Amy Wei, Priscila Santiesteban, Westley Weimer
 (IEEE Transactions on Software Engineering (Under Major Revision))
- TestLoop: A Process Model Describing Human-in-the-Loop Software Test Suite Generation** Aug 2025
 Matthew C. Davis, Sangheon Choi, Amy Wei, Sam Estep, Brad A. Myers, Joshua Sunshine
[10.1145/3765754](https://doi.org/10.1145/3765754) (ACM Transactions on Software Engineering and Methodology)
- TerzoN: Human-in-the-Loop Software Testing with a Composite Oracle** Apr 2025
 Matthew C. Davis, Amy Wei, Brad A. Myers, Joshua Sunshine
[10.1145/3729359](https://doi.org/10.1145/3729359) (ACM Foundations of Software Engineering)

Research Experience

- University of Michigan**, Undergraduate Researcher, Software and Cognition Lab Ann Arbor, MI
 • Advised by Dr. Westley Weimer and PhD student Priscila Santiesteban Nov 2024 – May 2026
 • Developed paper ideas through literature review of 18 papers
 • Designed source code stimuli and programming tasks for human study
 • Conducted study of 47 participants investigating effect of exercise breaks and AI assistance on code summarization performance
 • Used qualitative analysis and mixed effects linear regression to analyze results
 • Wrote and submitted manuscript to IEEE Transactions on Software Engineering
- Carnegie Mellon University**, Research Assistant, REU in Software Engineering '24 Pittsburgh, PA
 • Advised by Dr. Joshua Sunshine, Dr. Brad Myers, and PhD student Matthew Davis May 2024 – Aug 2024
 • Built TerzoN, a usable testing tool for TypeScript, during 10-week program sponsored by NSF, Amazon, and Meta
 • Implemented support for 3 types of testing (fuzzing, example-based testing, property-based testing)
 • Designed user study with 14 participants to evaluate the tool NaNofuzz against property-based testing tool fast-check for bug-finding performance
- Carnegie Mellon University**, Research Assistant, REU in Software Engineering '23 Pittsburgh, PA
 • Advised by Dr. Joshua Sunshine, Dr. Brad Myers, and PhD student Matthew Davis May 2023 – Aug 2023
 • Performed heuristic evaluation of 5 testing tools as benchmark (Hypothesis, Jest, Randoop, JQF, Evosuite)
 • Implemented sorting, human annotation, and validator function features to NaNofuzz to support multiple modes of testing
 • Presented at weekly meetings and shared findings in department-wide poster session with 100+ attendees

Teaching

University of Michigan , Instructional Aide, Discrete Mathematics (EECS 203)	Ann Arbor, MI
<ul style="list-style-type: none">Served as a TA for 5 semesters, led homework management team as czar for 2 semestersTaught discussion section of 40+ students to reinforce course concepts in a collaborative environmentHeld weekly office hours to support students in proof-based homeworksHired and managed team of 16 graders to ensure students received accurate and timely feedbackLed end-to-end homework duties, published homework grades for 600+ studentsDeveloped supplemental module of 33 problems to help students build mathematical proof-writing skills	Jan 2024 – May 2026

Honors and Awards

Barry Goldwater Scholarship – \$7,500 , Barry Goldwater Foundation	Mar 2025
The preeminent undergraduate award in STEM. Awarded for excellence in research, academics, and contributions to the community. 50 scholars in mathematics and computer science were selected nationally in 2025.	
College of Engineering Scholarship Award – \$3,000 , U-M College of Engineering	Aug 2025
Arlen R. Hellwarth Award – \$500 , U-M College of Engineering	Feb 2025
College of Engineering Scholarship Award – \$2,000 , U-M College of Engineering	Aug 2024
Distinguished Leadership Award , U-M College of Engineering	Feb 2024
George Landes Prize, Technical Communication First Year – \$150 , University of Michigan	Mar 2024
William J. Branstrom Freshman Prize , University of Michigan (top 5% of class)	Feb 2023

Activities

IEEE-Eta Kappa Nu (EECS Honor Society)	Sept 2023 – present
<ul style="list-style-type: none">Earned highest number of service hours in University of Michigan chapter	
Society of Women Engineers	Sept 2022 – present
<ul style="list-style-type: none">Volunteered at Elementary Engineering Exploration Day to introduce students to STEMHeld a charity Fun Run in support of U-M Health C.S. Mott Children’s Hospital	
Campus Symphony Orchestra, Violin	Sept 2022 – Apr 2026
<ul style="list-style-type: none">Rehearsed weekly in auditioned ensemble, performed in university-wide concerts each semester as Violin I and Principal Violin II	
Applied Linear Algebra (MATH 214), Grader	Sept 2023 – Jan 2024
<ul style="list-style-type: none">Graded weekly homework for 300+ students, drafted comprehensive grading rubricsWrote comments to provide students with individualized feedback	
Women’s Glee Club Choir, Alto I	Sept 2022 – Apr 2023
<ul style="list-style-type: none">Rehearsed weekly in auditioned ensemble, performed in university-wide concerts	

Skills

Technical: C/C++, Python, JavaScript/TypeScript, Java, Scheme, R, HTML/CSS, Git, LaTeX