

Melina O'Dell

✉ melinaodell48@gmail.com | [in linkedin.com/in/melina-odell](https://www.linkedin.com/in/melina-odell) | [globe melinaodell.com](https://melinaodell.com)

Education

University of Michigan – Ann Arbor, MI

Master of Science in Engineering in Computer Science

Aug 2023 – Dec 2024

GPA: 4.00 / 4.00

Bachelor of Science in Engineering in Computer Science

Sep 2019 – Apr 2023

GPA: 3.85 / 4.00, Summa Cum Laude

Dean's List 2019-2023, University Honors 2020-2021

Research Interests

Computer science and engineering education, applications of technology in education, human-computer interaction, user interfaces and experiences (UI/UX), software engineering

Publications & Talks

[“Specialist vs. Generalist Generative AI for Student Learning”](#)

ASEE

Melina O'Dell and Andrew DeOrio

2025

[“A Custom Generative AI Chatbot as a Course Resource”](#)

ASEE

Yutong Ai, Maya Baveja, Akanksha Girdhar, Melina O'Dell, Andrew DeOrio

2024

Teaching

University of Michigan – Ann Arbor, MI

EECS 485 (Web Systems) Instructional Aide and Graduate Student Instructor

Aug 2022 – Dec 2024

- Taught **five semesters**: F22 (520 students), W23 (480 students), F23 (720 students), W24 (460 students), F24 (550 students), **average student evaluation score 4.83/5**
- Led weekly lab sections for 30+ students to reinforce concepts through hands-on exercises
- Maintained the course autograder and course website
- Iteratively improved instructor solutions to adapt projects to evolving industry standards
- Held office hours and moderated Piazza forum to offer individual guidance
- Designed and tested exam questions to ensure clarity and quality and developed calibrated grading rubrics

Engineering Teaching Consultant, Center for Research on Learning and Teaching

Aug 2024 – Dec 2024

- Facilitated training sessions for new teaching assistants
- Developed resources for instructors related to appropriate classroom behaviors, inclusive teaching, and engagement techniques

Lectures

Recommender Systems

Nov 2024

EECS 485 (Web Systems), University of Michigan

Networking

Oct 2024

EECS 485 (Web Systems), University of Michigan

Parallel and Concurrent Programming

Apr 2024

EECS 390 (Programming Paradigms), University of Michigan

Server-side Dynamic Pages

Sep 2023

EECS 485 (Web Systems), University of Michigan

Service

University of Michigan – Ann Arbor, MI

CSE Master's Student Mentor

Sep 2025 - Dec 2025

- Supported graduate student success through group mentorship on research direction, academic development, and career planning
- Advised master's students monthly on professional skill-building and career navigation, drawing on industry and academic experience

Work Experience

Verkada – San Mateo, CA

Software Engineer, Core/Web Components

Feb 2025 - Present

- Led the frontend redesign of License Manager using React and TypeScript, enabling \$100M in bookings and \$100M in pipeline across 250+ enterprise customers; featured in the VerkadaOne keynote
- Authored technical specifications and coordinated with Product Management to organize tasks for two senior engineers and deliver on an aggressive founder-set timeline with on-time feature completion
- Modernized critical table, search, filter, and sorting components to unlock React 19 upgrade, accelerating the company-wide upgrade roadmap by 6 months of developer effort
- Proposed and led the rewrite of Verkada's component library documentation using Storybook to define standards and usage patterns in a consistent format, improving developer velocity and reducing questions
- Developed 3 new core components and refactored 7 existing components in the design system, adopted by 5 product teams with consistently positive feedback on ease of use

Frontend Software Engineering Intern, Core/Web Platform

May 2024 – Aug 2024

- Refactored Verkada's web application initialization endpoint to be lightweight, reducing page load by 90% (60s → 5s) for top customers with 10,000+ IoT devices by eliminating unnecessary data loading
- Designed scalable API migration pattern adopted by all 6 product teams, achieving 50-75% latency reduction across critical pages through selective data loading strategy
- Refined Datadog instrumentation to accurately measure LCP and real user experience, enabling product teams to prioritize performance improvements with reliable baselines and dashboards
- Increased reliability of under-tested, client-facing features and confidence in deployments by writing new end-to-end and unit test suites with Playwright and Jest

Frontend Software Engineering Intern, Access Control

May 2023 – Aug 2023

- Built interactive door device visualization for Floorplans UI using React, TypeScript, and Redux, enabling remote lock/unlock controls and device navigation – a highly requested feature for sales demos
- Designed reusable component architecture integrating Access Control into Floorplans, enabling rapid feature expansion and cross-product use case demonstrations for existing customers
- Documented implementation plans and engineering tradeoff discussions in a comprehensive technical project specification, enhancing project clarity and boosting cross-team awareness

University of Michigan – Ann Arbor, MI

Research Assistant

Sep 2023 – Jun 2025

- Developed and deployed a custom generative AI chatbot trained on course materials to a course of 700+ students as a supplemental course resource
- Later created a suite of custom generative AI chatbots and evaluated them for correctness and helpfulness against a general-purpose chatbot (ChatGPT) using sample student questions
- Interpreted and analyzed quantitative and qualitative survey results about student experiences and custom chatbot usefulness
- Press: [GenAI in computer science education: Friend or foe?](#)