

# Alice Mao

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## EDUCATION

### Washington University in St. Louis

St. Louis, MO

*Masters of Science in Computer Science*

Aug 2024 – Expected May 2025

*Bachelor of Science in Computer Science, Minor in Psychology and Human-Computer Interaction*

Aug 2021 – May 2024

### Relevant Coursework

Data Structures and Algorithms

Logic and Discrete Mathematics

Analysis of Algorithms

Introduction to Data Science

Object-Oriented Software Lab

Introduction to AI

Rapid Prototyping and Creative Programming

Introduction to Human-Centered Design

UX Research Methods/Design

Introduction to Visualization

Visual Principles for the Screen

Systems Software

**Awards & Honors:** Dean's List (All Semesters), UAA All-Academic (2023, 2024), WashU Hackathon (3<sup>rd</sup> place)

## SKILLS

- **Coding Languages:** Angular, Assembly Language, C, C++, CSS, d3.js, Django, Git, HTML, Java, JavaScript, Linux, Python, PHP, React, SQL, Swift, TypeScript, x86 Intel
- **Software:** Adobe Illustrator, Canva, Figma, Microsoft Suite, Google Suite, XCode, VSCode, Visual Studio
- **Spoken Languages:** English (Fluent), Mandarin (Fluent)

## RESEARCH

### Sensory and Ambient Interfaces Lab

Washington University in St. Louis

*Research Assistant*

July 2023 – Present

- Developing an iOS phone app with a companion iOS watch app using SwiftUI
- Processing of input data from a rowing machine to trigger haptic feedback based on user-defined thresholds
- Creating custom haptics patterns that correlate to specific HealthKit biometrics

### Computer Vision Swimming Lap Counter

Washington University in St. Louis

*Developer*

Aug 2024 – Dec 2024

- Using Python library OpenCV to develop a lap counter for swimming that accurately tracks how many laps swum
- Creating UI that can display the number of laps and lap splits how many lap splits for more than one swimmer
- Dynamically color correct input videos to better automatically detect swimmers

## EXPERIENCE

### Washington University in St. Louis

St. Louis, MO

*Head Teaching Assistant – Introduction to Computer Engineering*

Aug 2024 – Present

- Manage 70 TAs and assigned office hour times for each TA to work
- Ensure that assignment rubrics are correct and distributed at the proper time
- Delegated each TA to a group of students to work with during in class studio

*Teaching Assistant – Introduction to Computer Engineering*

Jan 2022 – Aug 2024

- Led weekly 80-minute labs to facilitate students' understanding of C, Assembly AVR, and the Arduino circuit board
- Graded lab assignments and proctored exams for over 1600 students, ensuring timely feedback and upholding academic integrity
- Provided guidance during office hours twice a week to support students in completing their assignments

### Greenheart Partners

Remote

*Full Stack Software Developer*

June 2022 – July 2022

- With a team of 10, developed website modules using HTML, JavaScript, and CSS
- Designed illustrations and icons used in modules and presentation slides
- Served as liaison between the design and software teams

## CAMPUS ACTIVITIES

### Washington University in St. Louis Varsity Swim Team

St. Louis, MO

*NCAA Division III Student-Athlete*

September 2021 – Present

- Train 20+ hours a week including swim practice and weight training
- Represent WashU at swimming competitions, including the UAA Swimming & Diving Championships