# yumeng ma

HUMAN-COMPUTER INTERACTION (HCI) · HUMAN-AI INTERACTION · ACCESSIBILITY · VISUAL & SOCIAL COMPUTING

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Education \_\_\_\_\_

**University of Washington** 

Seattle, WA

PHD IN COMPUTER SCIENCE AND ENGINEERING (HCI)

2024 - Present

Advisor: Jacob O. Wobbrock

**Brown University** 

Providence, RI

Sc.M in Computer Science

2022 - 2024

GPA: 4.0 / 4.0 Advisor: Jeff Huang

**Arizona State University** 

Tempe, AZ

**B.S. IN COMPUTER SCIENCE AND PSYCHOLOGY** 

1empe, AZ 2019 - 2022

Barrett Honors College

GPA: 4.0 / 4.0 Summa Cum Laude

Thesis: "Assessing Exhibit Interaction through Bridging the Connections Between Biometrics and Traditional Tools"

# Publications —

# **CONFERENCE PROCEEDINGS**

Zainab Iftikhar, **Yumeng Ma**, and Jeff Huang. 2023. "Together but not together": Evaluating Typing Indicators for Interaction-Rich Communication. In Proceedings of the 2023 Conference on Human Factors in Computing Systems (CHI '23). Paper

Ian Gonsher, **Yumeng Ma**, Ivan Pineda-Dominguez, Matthew Lee, and Yuxin. 2023. The Mixed Reality Passthrough Window: Rethinking the Laptop Videoconferencing Experience. Human Interaction and Emerging Technologies (IHIET-AI 2023): Artificial Intelligence and Future Applications. *Paper* 

### SHORT PAPERS & EXTENDED ABSTRACTS

**Yumeng Ma\*** and Jiahao Ren\*. 2023. ProactiveAgent: Personalized Context-Aware Reminder System. In The 36th Annual ACM Symposium on User Interface Software and Technology (UIST '23 Adjunct). *Paper* 

Research Experience \_\_\_\_\_

UW ACE Lab Seattle, WA

## GRADUATE RESEARCH ASSISTANT, ADVISED BY PROF. JACOB WOBBROCK

2024 - Present

• Currently collaborating with Microsoft on benchmarking Al-generated code to identify accessibility gaps and improve its reliability for inclusive web development.

### **Brown Department of Neuroscience**

Providence, RI

COMPUTER VISION RESEARCH ASSISTANT, ADVISED BY PROF. MICHAEL PARADISO

2023 - 2024

• Built a visual prosthesis system for blind and low vision users to locate everyday objects and identify surrounding text.

# UCLA HCI Lab Los Angeles, CA

### HCI RESEARCH INTERN, ADVISED BY PROF. XIANG 'ANTHONY' CHEN

2023

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• Led the development of a proactive reminder system that takes in user context, history, and spoken interactions by leveraging LLMs and personal agents.

<sup>\*</sup> equal contribution

## **Brown Department of Engineering**

Providence, RI

#### DESIGN RESEARCH ASSISTANT, ADVISED BY PROF. IAN GONSHER

2022 - 2023

• Introduced a new paradigm for the integration of AR into laptop and desktop displays to enable local users to interact more easily and seamlessly with remote users during videoconferencing sessions.

Brown HCI Lab Providence, RI

#### DISTRIBUTED RESEARCH EXPERIENCES FOR UNDERGRADUATES, ADVISED BY PROF. JEFF HUANG

2022

• Designed novel typing indicators and found that they enhance user co-presence in written communication through mixed method analysis.

ASU SoLET Lab

Tempe, AZ

## PSYCHOLOGY RESEARCH ASSISTANT, ADVISED BY DR. DANIELLE MCNAMARA

2022

 Conducted testing and evaluation of tutoring systems to optimize learning and educational practices for underrepresented groups.

NASA Psyche Mission

Tempe, AZ

#### HCI RESEARCH ASSISTANT, ADVISED BY PROF. MARIA ELENA CHAVEZ ECHEAGARAY

2021-2022

• Developed a web app that allows users to interact with the Psyche Spacecraft model and led user studies with biometric data analysis that showed the app increased public engagement.

# Work Experience \_\_\_

## Infosys

# RESEARCH INTERN, APPLIED RESEARCH CENTER FOR AUTONOMOUS MACHINES TEAM

2025

 Conducted design research on autonomous vehicle interfaces and created graceful degradation strategies using multimodal hazard escalation storyboards and user studies.

## Infosys

### UX DESIGN INTERN, LIVING LABS TEAM

2024

• Spearheaded the design of an accessible phygital UI that integrate emerging AI trends to optimize retail experiences for diverse user personas.

Brown + NASA Providence, RI

• Led and developed a sound and haptic-enabled cross-platform mobile app to help blind and low vision individuals explore and learn about space.

# Civilience

MOBILE DEVELOPER

# PROJECT MANAGEMENT & UX DESIGN INTERN | LIAISON BETWEEN FRONTEND AND UIUX

2023

2023 - 2024

 Led the UI/UX team to design a web-based app with interactive health data visualizations and built reusable components for a consistent design system across the product

# Awards, Fellowships, & Grants \_

- 2025 **Microsoft Grant**, Microsoft
- 2024 NSF Graduate Research Fellowship, NSF
- 2024 Paul G. Allen School Fellowship, University of Washington
- 2019 2023 Microsoft DisAbility Scholarship, Microsoft
  - 2022 Google CS Research Mentorship Program Fellowship, Google

# Teaching\_

## Spring '22 CSE 365 Information Assurance, TA for Adam Doupe and Tiffany Bao, ASU

# Extracurricular & Work Activities \_\_\_\_\_

2021 - Present	Member, AccessComputing	
2022 - 2024	Master's Representative, Brown University CS Diversity Committee	Providence, RI
2023	Student Volunteer, UIST	San Francisco, CA
2020 - 2021	Microsoft Support / Xbox Advocate Contract, Microsoft	Tempe, AZ