

Hui-Ru (Irene) Ho

PHD STUDENT · COMPUTER SCIENCES PROGRAM

University of Wisconsin-Madison, 1210 W Dayton St, Madison, WI 53726

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Education

University of Wisconsin-Madison

PHD COMPUTER SCIENCES

- Advisor: Dr. Bilge Mutlu
- GPA: 3.9/4.0

Madison Wisconsin

2024 - present

University of Wisconsin-Madison

MS COMPUTER SCIENCES

- Advisor: Dr. Bilge Mutlu

Madison Wisconsin

2021 - 2023

University of Wisconsin-Madison

MS EDUCATIONAL PSYCHOLOGY

- Advisor: Dr. Edward Hubbard

Madison Wisconsin

2019 - 2023

National Taiwan University

BS PSYCHOLOGY (MINOR IN ECONOMICS)

Taipei, Taiwan

2014 - 2019

Publications

PUBLISHED

Ho, H. R. (2025, April). Empowering Parents and Teachers to Support Children's Learning through AI-based and Robotic Learning Companions. Extended Abstract of the 2025 CHI conference on human factors in computing systems (CHI EA '25). *Acceptance Rate: 18%*

Ho, H. R., Hubbard, E. M., Mutlu, B. (2024, May). "It's Not a Replacement:" Enabling Parent-Robot Collaboration to Support In-Home Learning Experiences of Young Children. Proceedings of the 2024 CHI conference on human factors in computing systems (CHI '24). *Acceptance Rate: 25%* **Honorable Mention Award (Top 150 in 4028)**

Ho, H. R., White, N. T., Hubbard, E. M., Mutlu, B. (2023, June). Designing Parent-child-robot Interactions to Facilitate In-Home Parental Math Talk with Young Children. In Proceedings of the 22nd Annual ACM Interaction Design and Children Conference (IDC '23) (pp. 355-366). *Acceptance Rate: 29%*

Ho, H. -R., Cagiltay, B., White, N., Hubbard, E., Mutlu, B. (2021, June 24-30). RoboMath: Designing a Learning Companion Robot to Support Children's Numerical Skills. ACM Interaction Design and Children Conference (IDC '21), Athens, Greece. *Acceptance Rate: 36%*

Cagiltay, B., **Ho, H. -R.**, Michaelis, J., Mutlu, B. (2020, June 21-24). Investigating Family Perceptions and Design Preferences for an In Home Robot. ACM Interaction Design and Children Conference (IDC '20), London, United Kingdom. *Acceptance Rate: 32%*

Ho, H. -R., Chen, Y. -L., Wu, A. -Y., Yeh, S. -L., Youngstrom, E. A. (2017, August). Do people with different personalities show different emotion patterns? Poster presented at the American Psychological Association Annual Convention (APA '17), San Francisco, CA, United States.

IN REVIEW

Ho, H. R., Cagiltay, B., Ibtasar, R., Mutlu, B., Michaelis, J. E. (2025). Exploring How Learning Companion Robots Can Assist Children in Homework. [venue removed for anonymization concerns]

Ho, H. R., Kargeti, N., Liu, Z., Mutlu, B. (2025). SET-PAiREd: Designing for Parental Involvement in Learning with an AI-Assisted Educational Robot. [venue removed for anonymization concerns]

Research Experience

Graduate Researcher

PEOPLE AND ROBOTICS LAB, UW-MADISON

Madison, WI

09/2019 - Present

- Designing learning companion robot to support children's learning through human-AI collaboration.

Graduate Researcher

EDUCATIONAL NEUROSCIENCE LAB, UW-MADISON

Madison, WI

2019-2023

- Investigated how attention and multisensory perception affect working memory and numerical cognition.

User Experience Researcher Intern – AI Platform Team

META PLATFORMS, INC.

Menlo Park, CA

Summer 2022

- Led mixed-methods studies collaborating with AI/ML engineers and support AI productivity through quantitative methods.

User Experience Researcher Intern – Consumer Team

TREND MICRO TAIWAN

Taipei, Taiwan

Summer 2017

- Led mixed-methods research to develop privacy-sensitive products and evaluated in-home parental control device.

Mentoring Experience

2023-2025	Ziqi Liu, Undergraduate Assistant with Honors	Madison, WI
2023-2025	Justina Wang, Undergraduate Assistant with Honors	Madison, WI
2023-2025	Nitigya Kargeti, Graduate Assistant	Madison, WI
2024	Yash Sancheti, Undergraduate Assistant	Madison, WI
2022-2024	Muhammad Junaid, Graduate Assistant	Madison, WI

Teaching Experience

2022 - 2024	EP 301 How People Learn, Teaching Assistant	UW-Madison
2020 - 2022	EP 326 Mind, Brain and Education, Teaching Assistant	UW-Madison

Awards, Fellowships, & Grants

April 2025	CHI '25 Doctoral Consortium Award (<i>Acceptance rate: 18%</i>), CHI 2025	
June 2023	Graduate Student Travel Award, University of Wisconsin-Madison	\$500
June 2023	Student Research Grants Competition, University of Wisconsin-Madison	\$1500
May 2022	Government Scholarship to Study Abroad (GSSA), Ministry of Education, Taiwan (R.O.C.)	\$32,000
July 2018	Fully-Funded Scholarship: Study Abroad Program for Future Scholars in the Humanities and Social Sciences, Ministry of Education, Taiwan (R.O.C.)	\$30,000

Professional Development

Director of Communications

WISOLVE CONSULTING GROUP, INC

Madison, WI

2021-present

- Managed internal and external communications with members and community stakeholders.

Instructor

GRANDPARENT UNIVERSITY

Madison, WI

July 2024

- Taught grandparents and grandchildren how to program social robots.

Attendee

MORGRIDGE ENTREPRENEURIAL BOOTCAMP

Madison, WI

Summer 2022

- Educated with project management, business/lean startup canvas lecture and entrepreneurship.

Service and Outreach ---

May 2024 **ACM CHI 2024**, Student Volunteer
June 2023 **ACM IDC 2023**, Student Volunteer

Honolulu, HI
Chicago, IL

Peer Review ---

ACM/SIG Conferences: CHI, HRI, IDC