Yaxin Hu

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Research Interests	I design, build and study intelligent robots that create personal, social and leisure experiences in public spaces, especially for people with accessibility needs, and understand how these robots can be meaningfully integrated into the environments.

Education

2020 – Present **University of Wisconsin–Madison** – Madison, United States
Ph.D. Candidate in Computer Sciences, minor in Communication Arts
Advisor: Prof. Bilge Mutlu. *People and Robots Lab.*

2018 – 2020 **Carnegie Mellon University** – Pittsburgh, United States
MSc. in Computational Design
Advisor: Prof. Henny Admoni. *Human and Robots Partners Lab.*

2012 – 2017 **The Chinese University of Hong Kong (CUHK)** – Hong Kong
BSc. in Computer Science, minor in Fine Arts
Undergraduate Thesis Advisor: Prof. Tien-tsin Wong

2014 Fall **Dartmouth College** – Hanover, United States
Exchange student in Thayer School of Engineering

Full Conference Proceedings

2026
CHI
Robot-Assisted Group Tours for Blind People.
Yaxin Hu, Masaki Kuribayashi, Allan Wang, Seita Kayukawa, Daisuke Sato, Bilge Mutlu, Hironobu Takagi, Chieko Asakawa. *CHI Conference on Human Factors in Computing Systems 2026.* [Under Review]

2025
HRI
Designing Telepresence Robots to Support Place Attachment.
Yaxin Hu, Anjun Zhu, Catalina Toma, Bilge Mutlu. *In Proceedings of ACM/IEEE International Conference on Human Robot Interaction 2025.* [HRI 2025, acceptance rate: **25%**]

2025
UIST
NarraGuide: an LLM-based Narrative Mobile Robot for Remote Place Exploration.
Yaxin Hu*, Arissa J. Sato*, Jingxin Du, Chenming Ye, Anjun Zhu, Pragathi Praveena, Bilge Mutlu. *In Proceedings of the 38th Annual ACM Symposium on User Interface Software and Technology.* [UIST 2025, acceptance rate: **22%**]

2024
DIS

"This really lets us see the entire world:" Designing a conversational Telepresence Robots for Homebound Older Adults.
Yaxin Hu, Laura Stegner, Yasmine Kotturi, Yi-hao Peng, Faria Fuq, Yuhang Zhao, Jeffrey P. Bigham, Bilge Mutlu. *In proceedings of ACM Designing Interactive Systems 2024.* [DIS 2024, acceptance rate: **27.4%**]

2024
ASSETS

SMART-TBI: Design and Evaluation of the Social Media Accessibility and Rehabilitation Toolkit for Users with Traumatic Brain Injury.
Yaxin Hu*, Hajin Lim*, Lisa Kakonge, Jade T. Mitchell, Hailey L. Johnson, Lyn S. Turkstra, Melissa C. Duff, Catalina L. Toma, Bilge Mutlu. *In proceedings of the 25th International ACM SIGACCESS Conference on Computers and Accessibility.* [ASSETS 2024, acceptance rate: **30%**]

2023
ASSETS

Investigating Day-to-day Experiences with Conversational Agents by Users with Traumatic Brain Injury.
Yaxin Hu, Hajin Lim, Hailey L. Johnson, Josephine M. O'Shaughnessy, Lisa Kakonge, Lyn S. Turkstra, Melissa C. Duff, Catalina L. Toma, Bilge Mutlu. *In proceedings of the 25th International ACM SIGACCESS Conference on Computers and Accessibility.* [ASSETS 2023, acceptance rate: **30%**]

2023
CHI

So, I Can Feel Normal: Participatory Design for Accessible Social Media Sites for Individuals with Traumatic Brain Injury.
Hajin Lim, Lisa Kakonge, Yaxin Hu, Lyn S. Turkstra, Melissa C. Duff, Catalina L. Toma, and Bilge Mutlu. *In Proceedings of CHI Conference on Human Factors in Computing Systems 2023.* [CHI 2023, acceptance rate: **27.6%**]

2022
CHI

Polite or Direct? Conversation Design of a Smart Display for Older Adults Based on Politeness Theory.
Yaxin Hu, Yuxiao Qu, Adam Maus, Bilge Mutlu. *In Proceedings of CHI Conference on Human Factors in Computing Systems 2022.* [CHI 2022, acceptance rate: **24.7%**]

2021
DIS

Exploring the Role of Social Robot Behaviors in a Creative Activity.
Yaxin Hu, Lingjie Feng, Bilge Mutlu, Henny Admoni. *In Proceedings of Designing Interactive Systems Conference 2021.* [DIS 2021, acceptance rate: **26.8%**]

Journals

2025
THRI

Robot Primals: Exploring World Beliefs as a Source for Robot Behavior Design.
Dakota Sullivan, Nathan White, Yaxin Hu, Jeremy DW Clifton, Bilge Mutlu. *ACM Transactions on Human-Robot Interaction* (2025).

2025
JMIR

Using Smart Displays to Implement an eHealth System for Older Adults with Multiple Chronic Conditions: A Randomized Controlled Trial.
Gina Landucci, David H. Gustafson Sr, Marie-Louise Mares, Klaren Pe-Romashko, John J. Curtin, **Yaxin Hu**, Adam Maus, Kasey Thompson, Sydney Saunders, Kaitlyn Brown, Judith Woodburn, Bilge Mutlu. *JMIR Aging* (2025).

Workshops & Short Papers

2024
DIS

RoboCare Design Workshop: Understanding, Translating, Operationalizing, and Scaling up Design Knowledge Regarding Robotic Systems for Care Assistance.
Laura Stegner, Richard Paluch, Long-Jing Hsu, Sawyer Collins, **Yaxin Hu**, Marius Greuèl, Naonori Kodate, Claudia Müller, Bilge Mutlu, Selma Šabanović. *Companion Publication of the 2024 ACM Designing Interactive Systems Conference.*

2023
VRW

A Preliminary Interview: Understanding XR Developers' Needs towards Open-Source Accessibility Support.
Tiger F. Ji, **Yaxin Hu**, Yu Huang, Ruofei Du, and Yuhang Zhao. *In 2023 IEEE Conference on Virtual Reality and 3D User Interfaces Abstracts and Workshops (VRW), pp. 493-496. IEEE, 2023.*

2022
ICA

[Extended Abstract] A Pilot Study of Patients' Self-disclosure and Privacy Concerns to a Conversational Social Robot in Hospitals.
Jingyoung Choi, **Yaxin Hu**. *Presented at International Communication Association Conference*, 2022, Paris, France. (ICA 2022).

Work & Research Experience

Sep 2020 –
Present

Research Assistant, People and Robots Lab, University of Wisconsin–Madison
Advisor: Prof. Bilge Mutlu.
Led research projects on smart display development for older adults, social media accessibility tool kits for people with traumatic brain injury, and remote robots for leisure and social activities in public spaces.

Jul 2025 – Sep
2025

Research Internship, Miraikan - Tokyo, Japan
Advisors: Dr. Hironobu Takagi, Dr. Chieko Asakawa.
Led a research paper on *Robot-Assisted Group Tours for Blind People.*

Jun 2023 – Nov
2023

Visiting Research Student, HCII, Carnegie Mellon University - Pittsburgh
Advisor: Prof. Jeffrey P. Bigham.
Led a research paper on *Conversational Telepresence Robots for Homebound Older Adults.*

May 2019 – Aug 2020	**Research Assistant**, Human and Robot Partners Lab, Carnegie Mellon University Advisor: Prof. Henny Admoni. Led a research paper on non-verbal behaviors of social robots for creativity activities. Let OurCS workshop on social robots for undergraduate women engineers.
Summer 2026 & Jul 2017 – Jul 2018	**Analyst in Technology**, Global Markets, Deutsche Bank - Hong Kong Production support and software development for global equity derivatives trading. Integrated global trading data feeding pipeline and migrated databases.

Teaching experience

Spring 2025 UW–Madison	**Co-Instructor for CS 571 - Building User Interfaces** [Course Website] Conducted weekly lectures for an undergraduate CS course at UW–Madison (with more than 300 students enrolled) on human computer interaction concepts and user-centered methods.
Summer 2022 UW–Madison	**Instructor for Social Robotics Sessions - Grandparent University (GPU)** Hosted two sessions with social robot introduction lectures and hands-on robot programming activities with 30+ UW–Madison alumni grandparents and grandchildren.

Academic Services

Conference Reviewer	CHI (2023 – 2026), HRI (2022, 2026), DIS (2025), UIST (2024), RO-MAN (2024 – 2025), CASA (2025), AAAI Symposium (2024 Fall)
Journal Reviewer	ACM Transactions on Human Robot Interaction (THRI 2025), ACM Transactions on Computer-Human Interaction (TOCHI 2023), Computers in Human Behavior (2022)
HCC Meetups	Organized UW–Madison human-centered computing (HCC) reading groups, writing groups and discussion panels (Summer 2022).

Mentoring Experience

2024 – 2025	Chenming Ye (Honors Thesis at UW–Madison; Undergraduate RA) Anjun Zhu (Undergraduate RA; Next: PhD student at Simon Fraser University)
2023 – 2024	Caroline Zhang (Undergraduate RA; Next: Master student at UCSD) Mrigya Kumar (Undergraduate RA)
2022 – 2023	Deepansh Jagga (Graduate RA) Weiyu Kong (Undergraduate RA; Next: Master student at USC)

Honors and scholarships

2018 – 2020	**Merit Scholarship**, Carnegie Mellon University
2017	**Master List**, Morningside College, The Chinese University of Hong Kong
2017	**Dean's List**, The Chinese University of Hong Kong
2014	**GEF Scholarship**, The Chinese University of Hong Kong
	Awarded to attend summer program at Oxford University

References

Bilge Mutlu, *Professor*
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