

Yaxin Hu





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Research Interests I study how robots can be meaningfully integrated into our daily environments and public spaces to create leisure, social and personal experiences, especially for people with accessibility needs.

Education

- 2020 – Present **University of Wisconsin–Madison** – Madison, United States
Ph.D. Candidate in Computer Sciences
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
Advisor: Prof. Tien-tsin Wong
- 2014 Fall **Dartmouth College** – Hanover, United States
Exchange student in Thayer School of Engineering

Full Conference Proceedings

- 2026 **In situ Bodystorming of Robot Co-Design for Botanical Gardens**
 **Yaxin Hu**, Hui-Ru Ho, Chenming Ye, Bilge Mutlu. *ACM/IEEE International Conference on Human Robot Interaction 2026*. [Under Review]
- 2026 **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 **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 **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 let’s 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).
- 2022 **JMIR** **Using Smart Displays to Implement an eHealth System for Older Adults With Multiple Chronic Conditions: Protocol for a Randomized Controlled Trial.**
Gustafson, David H., Marie-Louise Mares, Darcie C. Johnston, Gina Landucci, Klaren Pe-Romashko, Olivia J. Vjorn, **Yaxin Hu**, Adam Maus, Jane E. Mahoney, and Bilge Mutlu. *JMIR Research Protocols* 11, no. 5 (2022): e37522.

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 Greuël, 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 2025 – Present **Visiting Research Student**, Singapore Management University - Singapore
Advisor: Prof. Tony Tang.
- Jul 2025 – Sep 2025 **Summer Internship**, Miraikan - Tokyo, Japan
Advisors: Dr. Hironobu Takagi, Dr. Chieko Asakawa.
Project: Robot-Assisted Group Tours for Blind People.
- Jun 2023 – Nov 2023 **Visiting Research Student**, HCII, Carnegie Mellon University - Pittsburgh
Advisor: Prof. Jeffrey P. Bigham.
Project: Conversational Telepresence Robots for Homebound Older Adults

Summer 2026 & Jul 2017 – Jul 2018	Deutsche Bank - Hong Kong <i>Analyst in Technology.</i> Production support for global equity derivatives trading. Integrated global trading data feeding pipeline in Java and migrated Oracle database. Analyzed trading activities and automated report generation.
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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 <i>Awarded to attend summer program at Oxford University</i>

Teaching experience

Spring 2025 UW–Madison	Co-Instructor for CS 571 - Building User Interfaces [Course Website] Undergraduate CS major selective course (300+ enrollment) Conduct weekly lectures for human computer interaction concepts and user-centered methods
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Summer 2022 UW–Madison	Instructor for Social Robotics Sessions - Grandparent University (GPU) Hosted two sessions on social robots with lectures and hands on robot programming activities with 30+ alumni grandparents and grandchildren.
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Academic Services

Conference Reviewer	CHI (2023–2026), HRI (2022, 2026), DIS (2025), UIST (2024), RO-MAN (2024–2025) CHI 2025, DIS 2025, RO-MAN 2025, UIST 2024, CHI 2024, RO-MAN 2024, CHI 2023, CSCW 2023, HRI 2022
Journal Reviewer	ACM Transactions on Human Robot Interaction (THRI 2025), ACM Transactions on Computer-Human Interaction (TOCHI 2023), Computers in Human Behavior (2022)

Mentoring Experience

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

References

Bilge Mutlu, *Professor*
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Catalina L. Toma, *Professor*
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Jeffrey P. Bigham, *Professor*
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