

RUIPU HU

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RESEARCH SUMMARY

My research is in the field of Human-Computer Interaction (HCI) and focuses on understanding how to design technologies that better support groups often overlooked in technology design. In my research to date, I primarily focus on older adults and people with cognitive impairment. My research bridges assets-based perspectives (e.g., **strength, lived abilities, abilities**) with technology design for aging to inform more useful and human-centered designs for emerging technologies. Across my research, I ask: *what are existing technologies not seeing about older adults using technology?* I address this question by expanding designers' understanding across three dimensions: how older adults participate in technology mediated activities, the resources that enable their technology use, and how they narrate their technological abilities and experiences. Using qualitative and design methodologies, I first **identify alternative accounts** that challenge deficit-based understandings of older adults' technology participation. Building on these insights, I then **examine overlooked resources** in everyday life that support their participation. Finally, I **develop conceptual approaches** to representing older adults' technological abilities and experiences, generating new design opportunities for HCI. Through this work, I develop my research approach with an assets-based perspective that helps to show the research community the capacities that older people already bring to technology use. In this approach, I **draw on theories** to highlight the skills of the populations I **work with, adapt and tailor methods** to make them accessible to older adults with diverse cognitive conditions (e.g., cognitive impairment), and **inform technology design** that do not disrupt existing ways of living.

EDUCATION

University of Maryland, College Park, MD PhD in Information Studies, Advisor: Amanda Lazar	2021-Present
Virginia Tech, Blacksburg, VA BS in Computer Science, Advisor: Sang Won Lee	2017-2021

SELECTED RESEARCH EXPERIENCE

Everyday Technology Resources of Older Adults with Cognitive Concerns	<i>College Park, MD</i>
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DOCTORAL RESEARCHER – UNIVERSITY OF MARYLAND Advisor: Dr. Amanda Lazar	<i>2022–Present</i>
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- Lead a multi-study research program examining how older adults with cognitive concerns use routines, objects, social relationships, and digital tools to navigate technology problems.
- Designed accessible qualitative studies using interviews, observations, diary studies, technology probes, and co-design workshops.
- Translated findings into design implications, resulting in first-authored publications at ASSETS 2024, CHI 2025, and CHI 2026.

Sustaining an Older Adult-Led Makerspace	<i>Washington, DC</i>
GRADUATE RESEARCHER – UNIVERSITY OF MARYLAND Advisor: Dr. Amanda Lazar	<i>2021–2024</i>

- Conducted a 34-month ethnographic study of an older adult-led makerspace, including observations of 27 classes with 148 participant attendances.

- Examined how people, materials, spaces, and institutional support sustained the makerspace through organizational changes.
- Published the findings as a first-authored paper at CSCW 2024.

Interactive Systems for End-User Programming and Online Learning

UNDERGRADUATE RESEARCHER – VIRGINIA TECH

Advisor: Dr. Sang Won Lee

Blacksburg, VA

2019–2021

- Contributed to the design of interactive systems supporting end-user programming, Internet of Things automation, and online task learning.
- Co-authored publications appearing at UIST 2020 Adjunct and UIST 2022 Adjunct, and IEEE VL/HCC 2024.

PUBLICATIONS

Peer-Reviewed Archival Publications

Journal Articles

- [J1] **Sustaining the Usefulness and Appeal of an Older Adult-Led Makerspace through Developing and Adapting Resources.**

Ruipu Hu, Alisha Pradhan, Elizabeth Bonsignore, and Amanda Lazar.

In *Proceedings of the ACM on Human-Computer Interaction* (PACM HCI, CSCW '24). [\[PDF\]](#)

Conference Papers

- [C6] **Looking Beyond the Screen to Study the Technology Use of Older People Experiencing Cognitive Concerns.**

Ruipu Hu, Eun Kyoung Choe, and Amanda Lazar.

In *Proceedings of the ACM Conference on Human Factors in Computing Systems* (CHI '26). [\[PDF\]](#)

- [C5] **Interrogating the “Us” Versus “Them” Dichotomy in Technology Research with Older Adults.**

Amanda Lazar, Elissa Carpio, **Ruipu Hu**, Beth Barnett, Kibron Tesfatsion, and Sheena Erete.

In *Proceedings of the ACM Conference on Human Factors in Computing Systems* (CHI '26). [\[PDF\]](#)

Best Paper Honorable Mention Award

- [C4] **Surfacing Technology Routines While Studying Videoconferencing Among Older Adults with Cognitive Concerns.**

Ruipu Hu and Amanda Lazar.

In *Proceedings of the ACM Conference on Human Factors in Computing Systems* (CHI '25). [\[PDF\]](#)

- [C3] **Tracking and its Potential for Older Adults with Memory Concerns.**

Amelia Short, Norman Makoto Su, **Ruipu Hu**, Eun Kyoung Choe, Hernisa Kacorri, Margaret Danilovich, David E. Conroy, Shannon Jette, Beth Barnett, and Amanda Lazar.

In *Proceedings of the ACM Conference on Human Factors in Computing Systems* (CHI '25). [\[PDF\]](#)

Best Paper Award

- [C2] **Exploring Videoconferencing for Older Adults with Cognitive Concerns Using a Dramaturgical Lens.**

Ruipu Hu, Ge Gao, and Amanda Lazar.

In *Proceedings of the ACM SIGACCESS Conference on Computers and Accessibility (ASSETS '24)*. [\[PDF\]](#)

[C1] Beyond TAP: Piggybacking on IFTTT to Connect Triggers and Actions with JavaScript.

Daniel Manesh, Marx Boyuan Wang, **Ruipu Hu**, and Sang Won Lee.

In *Proceedings of the IEEE Symposium on Visual Languages and Human-Centric Computing (VL/HCC '24)*. [\[PDF\]](#)

Lightly Reviewed Publications

Workshop and Companion Publications

[W2] Speculating and Disentangling the Relationship Between Technology and Care Work.

Ajit G. Pillai, Renxuan Liu, Jung-Joo Lee, Janghee Cho, Insun Baek, Adrian Choi, Kevin Doherty, Christopher Ferguson, **Ruipu Hu**, Sarah Kettley, Seonghoon Kim, Jiashuo Liu, Tse Pei Ng, Adrian Petterson, Matt Ratto, Celeste Seah, Yiming Yao, and Yiying Wu.

In *Companion Publication of the 2025 ACM Designing Interactive Systems Conference (DIS '25 Companion)*. [\[PDF\]](#)

[W1] Studying Older Adults' Perceptions on AI Through AI Lectures.

Ruipu Hu, Nancy Roderer, and Amanda Lazar.

Extended abstract presented at the *Workshop on Wireless and Mobile Computing for AgeTech (MobiCom4AgeTech '24)*, co-located with ACM MobiCom '24. [\[PDF\]](#)

Posters and Extended Abstracts

[P2] IThem: Programming Internet of Things Beyond Trigger-Action Pattern.

Marx Boyuan Wang, Daniel Manesh, **Ruipu Hu**, and Sang Won Lee.

In *Adjunct Proceedings of the ACM Symposium on User Interface Software and Technology (UIST '22 Adjunct)*. [\[PDF\]](#)

[P1] Remo: Generating Interactive Tutorials by Demonstration for Online Tasks.

Amber Aftab, **Ruipu Hu**, and Sang Won Lee.

In *Adjunct Proceedings of the ACM Symposium on User Interface Software and Technology (UIST '20 Adjunct)*. [\[PDF\]](#)

AWARDS AND HONORS

HCIL Maryland Way Award Honorable Mention for Research Excellence - \$250	2025
Best Paper Award - CHI 2025	2025
Dean's Fellowship Award - \$2500	2021

TEACHING

Co-Instructor , University of Maryland, College Park, MD	2025
INST 808: Seminar in Research Methods and Data Analysis	
Designed and led graduate-level course that focuses on conducting qualitative research to understand behavioral and social aspects of information technology use and inform information system or technology design. The course will include a focus on study design, data collection, and analysis. Students will engage in a hands-on project involving qualitative data collection and analysis that culminates in a research paper about a topic of their choice.	

MENTORING

Mital Shardaben , Master’s Student, M.S. in Human-Computer Interaction (HCIM) University of Maryland, College Park	2024
Wan-Ting Lo , Master’s Student, M.S. in Human-Computer Interaction (HCIM) University of Maryland, College Park	2023

ACADEMIC SERVICE

Leadership and Committee Roles

Program Committee Member , ACM ASSETS	2026
Associate Chair , ACM CHI Late-Breaking Work	2025

Reviewing Distinctions

3 Special Recognitions for Outstanding Reviews, CHI 2026 Papers, CHI 2025 Case Studies, and IMWUT February 2025.

Reviewing Record: 37 reviewing assignments completed on time, with no delayed or unsubmitted reviews.

Conference and Journal Reviewing

Conferences: ACM CHI (2023–2026); ACM CSCW (2023, 2024, 2026); ACM Creativity & Cognition (2026); ACM GROUP (2027); AAAI Symposium Series (2024).

Journals: ACM IMWUT (2022, 2025, 2026).

Other Service

Student Volunteer , ACM CSCW	2022
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COMMUNITY SERVICES

Committee Member, Volunteer, Collaborator, Knollwood Independent Living and Assisted Living, Washington DC 09/2021 - current
Participated in committee meetings and assisted in organizing technology-related services.

Committee Member, Volunteer, Hyattsville Aging in Place, MD 08/2024 - current
Joining HAP steering committee and helping plan HAP programs.

1-on-1 Technology Consultant for Seniors, CCACC, MD 03/2024 - current
Providing weekly one-on-one virtual technology consultations to senior attendees hosted by Chinese Culture and Community Service Center (CCACC).

Instructor of Senior Computer Training, Benjamin Gaither Senior Citizen Center, MD 04/2024 - 06/2024
Designed and taught an 8-week technology training course for residents of the City of Gaithersburg.

TALKS AND PRESENTATIONS

Invited Panelist on Community-Based Research, University of Maryland 2026
Invited by Prof. Sheena Erete to share experiences in conducting community-based research with graduate students.

Invited Speaker at Prof. Stephanie Valencia Valencia’s Lab, University of Maryland 2026
Exploring Capacities of Older Adults and People with Cognitive Impairments in Using Technology

Invited Panelist for “A Panel on Graduate School”, University of Maryland 2025
Invited by Prof. Eun Kyoung Choe to share PhD experiences and insights with undergraduate students in the course “Do You Like Research?”

Invited Panelist for INST 802 “Pragmatic and Methodological Foundations for Information Studies”, University of Maryland 2025
Invited by Prof. Sheena Erete to share experiences as a doctoral student on academic writing and research development

Invited Speaker at Columbia University HCI Seminar, Columbia University 2025

Exploring Videoconferencing Technology While Navigating Aging and Cognitive Changes
Presenter at CSCW, San José, Costa Rica 2024

Sustaining the Usefulness and Appeal of an Older Adult-led Makerspace through Developing and Adapting Resources
Presenter at ASSETS, St. John's, Canada 2024

Exploring Videoconferencing for Older Adults with Cognitive Concerns Using a Dramaturgical Lens
Presenter at HCIL Annual Symposium, University of Maryland 2024

Presenter at HCIL Annual Symposium, University of Maryland 2023

Presenter at HCIL Annual Symposium, University of Maryland 2022

Presenter at ACM Symposium on User Interface Software and Technology (UIST), online 2020