

Erzhen Hu

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🌐 erzhenh.com

🌀 [ecruhue](https://github.com/ecruhue)

Research

My research is at the intersection of **Human-AI Interaction**, **Artificial Intelligence**, and **Social and Collaborative Computing**. I design and study interactive systems that engineer both the scale and nuance of communication, bridging **behavioral theories** of human interaction with **AI-driven authoring and generative tools**. These systems span conversational interfaces, avatar-based simulations, and multimodal media. I envision a future where humans and AI co-exist as expressive, socially aware, and creative partners. My PhD was supported by a Google PhD Fellowship and a selection as MIT EECS Rising Stars participant. During summers, I've interned at Microsoft Research, Google, and Autodesk Research.

Education

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| 2021 – 2026
(Exp.) | Ph.D. in Computer Science, University of Virginia – Charlottesville, VA
Advisor: Prof. Seongkook Heo |
| 2018 – 2020 | M.S. in Statistics, University of Virginia – Charlottesville, VA |
| 2014 – 2018 | B.A. in Sociology, Shanghai University – Shanghai, CN |

Work Experience

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| May–Sep 2025 | Autodesk Research , Toronto, CA
<i>Research Intern</i>
Mentors: Dr. Frederik Brudy, Dr. David Ledo, and Dr. Fraser Anderson |
| Jan–Aug 2024 | Google , Hybrid, US
<i>Student Researcher</i>
Mentors: Dr. Ruofei Du |
| May–Aug 2023 | Microsoft Research , Redmond, US
<i>Research Intern</i>
Mentors: Dr. Nicolai Marquardt and Dr. Kori Inkpen |

Conference Full Publications

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| Note | [ACM <i>CHI</i> , ACM <i>CSCW</i> , and ACM <i>UIST</i> are top-tier conferences in HCI and CS.] |
| [C10] | PrevizWhiz: Combining Rough 3D Scenes and 2D Video to Guide Generative Video Previsualization
<u>Erzhen Hu</u> , Frederik Brudy, David Ledo, George Fitzmaurice, Fraser Anderson.
CHI 2026 - Accepted |
| [C9] | Redirected Pinch: Efficient and Comfortable Bare-Hand Interaction for 2D Windows in VR
Wen Ying, Yeonsu Kim, Adil Rahman, <u>Erzhen Hu</u> , Geehyuk Lee, Seongkook Heo
CHI 2026 - Accepted |

- [C8] **ReliveMeet: Interactive Visual Storyboards and Chat-Based Dialog Guide for Engaging Experiences Reliving Missed Meetings.**
Erzhen Hu, Nicolai Marquardt, John Tang, Nathalie Henry, Asta Roseway, Sasa Junuzovic, Ken Hinckley, Kori Inkpen.
[Under Review, AVI 2026](#) - International Conference on Advanced Visual Interfaces
- [C7] **DialogLab: Authoring, Simulating, and Testing Dynamic Human-AI Group Conversations**
Erzhen Hu, Yanhe Chen, Mingyi Li, Vrushank Phadnis, Pingmei Xu, Xun Qian, Alex Olwal, David Kim, Seongkook Heo, Ruofei Du.
[UIST 2025](#) - The ACM Symposium on User Interface Software and Technology
- [C6] **Thing2Reality: Enabling Spontaneous Creation of 3D Objects from 2D Content using Generative AI in XR Meetings**
Erzhen Hu, Mingyi Li, Xun Qian, Alex Olwal, David Kim, Seongkook Heo, Ruofei Du.
[UIST 2025](#) - The ACM Symposium on User Interface Software and Technology
- [C5] **ThingMoji: User-Captured Cut-Outs For In-Stream Visual Communication**
Erzhen Hu, Wan Qian, Changkong Zhou, Piaohong Wang, Xingyi Hu, Md Azim Asshikur Rahman, Yuhang Tsang, Zhicong Lu, Seongkook Heo.
[CSCW 2025](#) – ACM Conference on Computer-Supported Cooperative Work & Social Computing.
- [C4] **ThingShare: Ad-Hoc Digital Copies of Physical Objects for Sharing Things in Video Meetings**
Erzhen Hu, Jens Emil Grønbaek, Wen Ying, Ruofei Du, Seongkook Heo.
[CHI 2023](#) – ACM CHI Conference on Human Factors in Computing Systems.
- [C3] **OpenMic: Utilizing Proxemic Metaphors for Conversational Floor Transitions in Multiparty Video Meetings**
Erzhen Hu, Jens Emil Grønbaek, Austin Houck, Seongkook Heo.
[CHI 2023](#) – ACM CHI Conference on Human Factors in Computing Systems.
- [C2] **Enjoy the Ride Consciously with CAWA: Context-Aware Advisory Warnings for Automated Driving**
 Erfan Pakdamanian, Erzhen Hu, Shili Sheng, Sarit Kraus, Seongkook Heo, Lu Feng.
[AutoUI 2022](#).
- [C1] **FluidMeet: Enabling Frictionless Transitions Between In-Group, Between-Group, and Private Conversations During Virtual Breakout Meetings**
Erzhen Hu, Md Aashikur Rahman Azim, Seongkook Heo.
[CHI 2022](#) – ACM CHI Conference on Human Factors in Computing Systems.

Demo, Posters, Workshops

- [W3] **SpaceShare: Leveraging Multimodal Context For Fluid Sharing Of Spaces In Video Meetings**
 Hyeongjin Kim, Erzhen Hu, Seongkook Heo
UIST 2025 Poster.

[W2] **Experiencing Thing2Reality: Transforming 2D Content into Conditioned Multi-views and 3D Gaussian Objects for XR Communication**
Erzhen Hu, Mingyi Li, Xun Qian, Alex Olwal, David Kim, Seongkook Heo, Ruofei Du.
UIST 2024 Demo.

[W1] **Enabling Remote Hand Guidance in Video Calls Using Directional Force Illusion**
 Archana Narayanan, Erzhen Hu, Seongkook Heo.
CSCW 2022 Poster.

Patents

[P3] **Combining Rough 3D scenes and 2D video to guide generative vidoe previsualization**
Erzhen Hu, David Ledo, Fraser anderson, George Fitzmaurice and Frederik Brudy
 Autodesk, filed Jan 2026

[P2] **Creating Three-Dimensional Object From Two-Dimensional Image**
 Ruofei Du, Erzhen Hu
 Google, filed May 2025

[P1] **Media Stream Storyboard Generation**
 Kori Inkpen, Nicolai Marquardt, John Tang, Asta Roseway, Erzhen Hu, Sasa Junuzovic, Nathalie Riche. WO2025/106208 (also published as US20250157103A1)
 Microsoft, filed Nov 2023, published May 2025

Honors and Scholarships

2025 EECS Rising Stars participant, MIT
 2024 Google PhD Fellowship (HCI track, \$98,000)
 2024 Google Travel Award (\$3,000)
 2022 ACM SIGCHI Gary Marsden Travel Award (\$1,400)
 2021-2022 University of Virginia Computer Science Fellowship

Professional Services

2023-2025 **Program Committee Member**
 ACM Creativity & Cognition (C&C) papers 2025
 ACM CHI Late-Breaking-Work (LBW) 2023, 2024
 ACM CSCW Poster 2024, ACM CSCW Demo Jury 2024

2022-2025 **Reviewer** [* = Outstanding Reviews]
 CHI 2023 (*), 2024, 2025 (*x4), 2026 (*x2)
 CSCW 2022, 2024 (*); UIST 2023, 2024 (*), 2025 (*x2)
 DIS 2025 (*), 2026; C&C 2024, 2025 (*);
 MobileHCI 2022 (*); Auto UI 2022; NordiCHI 2022 (*)

2024 **Mentor**, Girls Who Code at UVA

2022 **Lab Visit Demo**, High School Visitation event organized by the Society of Women Engineers

2021-2022 **Student Volunteer**, CSCW 2022, UIST 2022, IUI 2022, IEEE VR 2022, ISS 2021

Talks

2026	Invited Talk , Intercollegiate Extended Reality (ICXR) organization , Virtual, US <i>Reality Across Dimensions: Virtual Communication with AI and XR</i>	Jan 2026
2025	Research Talk , Autodesk Research, Toronto, ON	Aug 2025
	Invited Lecture , George Mason University, Fairfax, VA <i>Designing for Object-Centric Communication in Real-Time Video Streaming Systems</i>	Apr 2025
2024	AR Intern Show & Tell , Google, CA, US	Aug 2024
	Research Intern Talk , Google, Virtual, US	Apr 2024
	Invited Talk at HCI Seminar , Google, Remote, CA	Feb 2024
2023	Presentation on HC(AI)X Day , Microsoft Research, Redmond, WA	Jul 2023
	Research Talk , Microsoft Research, Redmond, WA	Jun 2023
	Invited Talk at City University of Hong Kong , Virtual, HK	Feb 2023
2022	UVA Link Lab Student Awardee and UVA Research Day , Charlottesville, VA	Sep 2022
	Invited Talk at Social Presence Seminar Series , Virtual, US Host: Nicole Immorlica, Benjamin C. Pierce and Qiao Jin Talk Schedule	Apr 2022

Teaching

2025	CS 3205 HCI in Software Development , University of Virginia	Spring 2025
2024	CS 6501 Human-Computer Interaction , University of Virginia	Fall 2024
2023	CS 4501/6501 Engineering Interactive Technology , University of Virginia	Spring 2023
	CS 6501 Human-Computer Interaction , University of Virginia	Fall 2023