

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

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

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

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