

Erzhen Hu

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

Interests

I am a final-year CS PhD candidate. My research is at the intersection of **Human-Computer Interaction (HCI)**, **Artificial Intelligence (AI)**, and **Real-Time Communication (RTC)**, where I build intuitive, creator-facing AI tools that bridge multimodal model research and real-world workflows. I've published papers in top HCI and CS venues such as CHI, CSCW, and UIST. My PhD was supported by a **Google PhD Fellowship**, and I was selected as an **MIT EECS Rising Star**.

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> , HCI & Visualization Team
Mentors: Dr. Frederik Brudy, Dr. David Ledo, and Dr. Fraser Anderson <ul style="list-style-type: none">• Built AI pre-visualization tools integrating multimodal diffusion (Wan 2.1, VACE) and LoRA pipelines for controllable video generation. Full paper under submission to CHI 2026.• Interactive videos for filmmaking and content creation. |
| Jan–Aug 2024 | Google , Hybrid, USA
<i>Student Researcher</i> , Interactive Perception & Graphics Team
Mentors: Dr. Ruofei Du <ul style="list-style-type: none">• Lead of DialogLab for prototyping diverse group dynamics of multi-agent conversations with LLMs and text/audio-to-audio models (UIST'25 Papers [C7]) with open-source repo and web demo.• Utilized text-to-3D and image-to-3D models to support spontaneous communication around 2D and 3D artifacts in XR Meetings (UIST'24 Demo [W2], UIST'25 Papers [C6], US patent filed [P2]).• Partnered with research scientists, engineers and UX researchers to refine model pipelines into creative authoring interfaces. |
| May–Aug 2023 | Microsoft Research , Redmond, US
<i>Research Intern</i> , EPIC Team & Transcendence Project
Mentors: Dr. Nic Marquardt and Dr. Kori Inkpen <ul style="list-style-type: none">• Designed, implemented, and evaluated a meeting review system for non-attendees as AI-enabled autonomous agents during time-shifted workplace meetings.• Co-inventor on a published patent application [P1] (WO2025/106208; US20250157103A1). |

Awards and Scholarships

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| 2025 | EECS Rising Star, MIT |
| 2024 | Google PhD Fellowship (HCI track, \$98,000) |
| 2022-2024 | Special Recognitions for Outstanding Reviews
CHI 2025 Papers (x4); CSCW 2024 Papers, UIST 2024 Papers, C&C 2024 Papers; CHI 2023 Papers; MobileHCI 2022 Papers, NordiCHI 2022 Papers |
| 2022 | ACM SIGCHI Gary Marsden Travel Award (\$1,400) |
| 2021-2022 | University of Virginia Computer Science Fellowship |

Conference Full Publications

- Note** [ACM *CHI*, ACM *CSCW*, and ACM *UIST* are top-tier conferences in HCI and CS field.]
- [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, Yuhua 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] **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.
- [C1] **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](#).

Demo, Extended Abstract

- [W3] **SpaceShare: Leveraging Multimodal Context For Fluid Sharing Of Spaces In Video Meetings**
Hyeongjin Kim, Erzhen Hu, Seongkook Heo
UIST 2024 Poster.
- [W2] **Experiencing Thing2Reality: Transforming 2D Content into Conditioned Multiviews 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

- [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

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

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)
CSCW 2022, 2024 (*)
UIST 2023, 2024 (*), 2025 (*x2)
DIS 2025 (*)
C&C 2024, 2025 (*)
MobileHCI 2022 (*)
Auto UI 2022
NordiCHI 2022 (*)

Talks

2024	AR Intern Show & Tell , Google, MTV, CA	Aug 2024
	Research Intern Talk , Google, Remote, CA	Apr 2024
	Presentation at Technical HCI Seminar , Google, Remote, CA	Feb 2024
2023	Presentation on HC(AI)X Day , Microsoft Research, Redmond, WA	Jul 2023
	Research Intern Talk , Microsoft Research, Redmond, WA	Jun 2023
	Invited Talk at City University of Hong Kong , Remote	Feb 2023
2022	Social Presence Seminar Series , Remote, CA	
	Host: Nicole Immorlica, Benjamin C. Pierce and Qiao Jin Talk Schedule	Apr 2022