

HOUJIANG LIU

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CONTACT

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EDUCATION

University of Texas at Austin, School of Information, 2021–present

Ph.D. Student of Information Studies/Science

Committee: Matthew Lease (advisor), Jacek Gwizdka, & Ahmer Arif

Northeastern University, College of Arts, Media and Design, 2020

M.F.A. in Experience Design

Committee: Miso Kim (advisor), Kristian Kloeckl, & Meryl Alper

Jilin University, College of Physics, 2015

B.S. in Applied Physics

RESEARCH AREAS

My research in **Human-Computer Interaction (HCI)** focuses on **Human-Centered Artificial Intelligence (AI)** and **Design Research**, with an emphasis on integrating human-centered principles into AI system design to increase **AI access and usability for domain experts** across various fields. One central focus is collaborating with diverse stakeholders, such as journalists, fact-checkers, and the public, **to combat mis/dis-information and foster informed public discourse** [J4, J5, M1, M2, P3]. Recently, I have expanded my research to explore **AI-accelerated scientific discovery**, investigating how advanced AI technologies, such as large language models (LLMs) and AI agents, can automate or accelerate research processes and uncover new scientific insights. My earlier work focused on **service design** [C1, C2, C3, C5, J2, J3, P2] and **information visualization** [C4, J1, P1].

AWARDS

Best Paper Honorable Mention, ACM CSCW 2024

Recognition awarded to the top 4% of submitted papers. [\[Official announcement\]](#)

3 x Recognized for Outstanding Reviews: ACM CSCW 2024 & 2025; ACM UIST 2024

The Information is Beautiful Awards (longlist), 2022

The Information is Beautiful Awards (longlist) highlight exceptional global entries in data visualization, infographics, and information art, serving as showcase for finalists each year. [[Showcase](#), [Software](#), [Code](#)]

First Design Award, Health x Design Challenge, 2019

*Winner of the 2019 Health Experience Design Challenge, recognizes innovative projects that promote health, financial wellbeing, and social impact, organized by Mad*Pow (now part of BORN Consulting Group) and Robert Wood Johnson Foundation. [[Press](#)]*

Innovative Design Award, Reinventing Tencent Map, Tencent, 2014

Winner of the 2014 Tencent Map Redesign, recognized for pioneering the integration of Augmented Reality (AR) features into the mobile application.

RESEARCH GRANTS & SCHOLARSHIP

Professional Development Award, University of Texas at Austin, 2023–24

Summer Research Grant, University of Texas at Austin, 2023

Bridges Fellowship, Center for Design, Northeastern University, 2021

Deans' Award for Research Scholarship and Creativity, Northeastern University, 2020

Summer Research Grant, Northeastern University, 2019

Graduate Student Scholarship, Northeastern University, 2018–20

Undergrad Merit Scholarship, Jilin University, 2012–13, 2015

PROFESSIONAL EXPERIENCE

Academic

2021–present Graduate Research Assistant
AI & Human-Centered Computing Group, University of Texas at Austin

2020–21 Design Researcher
Center for Design, Northeastern University

2020–21 Lecturer
College of Arts, Media and Design, Northeastern University

Professional

2017–18 User Experience Designer
SeetaTech, Beijing

2015–17 Interaction Designer
JD.com, Beijing

2015, Spring Interaction Design Intern
JD.com, Beijing

2013, Summer Design Intern
Lenovo, Harbin

2012, Summer Design Intern
Midea Group, Foshan

Under-review Manuscripts

- [M1] **Houjiang Liu***, Li Shi*, Yian Wong, Utkarsh Mujumdar, Dan Zhang, Jacek Gwizdka, and Matthew Lease. Argumentative Experience: Reducing Confirmation Bias on Controversial Issues through LLM-Generated Multi-Persona Debates. 2024.
- [M2] **Houjiang Liu**, Jacek Gwizdka, and Matthew Lease. Exploring Multidimensional Checkworthiness: Designing AI-assisted Claim Prioritization for Human Fact-checkers. 2024.

Journal Papers

- [J5] **Houjiang Liu***, Anubrata Das*, Alexander Boltz*, Didi Zhou, Daisy Pinaroc, Matthew Lease, and Min Kyung Lee. Human-centered NLP Fact-checking: Co-Designing with Fact-checkers using Matchmaking for AI. *Proceedings of ACM Human-Computer Interaction*, 8, CSCW2, Article 423, 44 pages, 2024. [[DOI](#), [arXiv](#), [Presentation](#)] **Best Paper Honorable Mention (top 4%)**
- [J4] Anubrata Das, **Houjiang Liu**, Venelin Kovatchev, and Matthew Lease. The state of human-centered NLP technology for fact-checking. *Information Processing & Management*, 60(2) :103219, 2023. [[DOI](#), [arXiv](#)]
- [J3] **Houjiang Liu***, Estefania Ciliotta Chehade*, William Albert, and Miso Kim. An Empirical Study of How Service Designers Use Metrics. *She Ji: The Journal of Design, Economics, and Innovation*, 9(3) :402–427, 2023. [[DOI](#), [Blog](#)]
- [J2] Mingzhu Li, Miso Kim, Liqing Huang, and **Houjiang Liu**. Designing for people you can't meet: Persuasive design to nurture seniors' participation in community services during the COVID-19 pandemic. *The Design Journal*, 26(6) :934–955, 2023. [[DOI](#)]
- [J1] Sara Colombo, Estefania Ciliotta Chehade, Lucia Marengo, **Houjiang Liu**, Piero Molino, and Paolo Ciuccarelli. Design for Emergency: How Digital Technologies Enabled an Open Design Platform to Respond to COVID-19. *Interacting with Computers*, 35(5) :650–665, 2023. [[DOI](#), [Website](#), [Blog](#), [Video](#)]

Conference Papers

- [C5] **Houjiang Liu** and Miso Kim. Is gift a token of gratitude or an imposition of identity? Facilitating positive consequences of gift-giving with receiver-centred design. In: *Proceedings of International Association of Societies of Design Research (IASDR)*, 2023. [[DOI](#), [Presentation](#)]
- [C4] Jiabao Li, **Houjiang Liu**, Jilie Zeng, Di Wu, Ying Ding, and Alec McGill. Shifting Winds: Gendered Structures of Academic Mentorship. In: *2022 IEEE VIS Arts Program (VISAP)*, pp. 14–29, [ieeexplore](#), 2022. [[DOI](#), [Website](#), [Code](#)]

- [C3] **Houjiang Liu**, Ray Lc, Miso Kim, Concettina Cormio, and Meixin Yu. Designing for Distance Nursing: Reconnecting Nursing Students with Senior Home Residents During COVID-19. In: *Proceedings of International Association of Societies of Design Research (IASDR)*, 2022. [[DOI](#), [Presentation](#)]
- [C2] **Houjiang Liu**, Miso Kim, Mingzhu Li, and Shruthi Lakshmi Narayan. Technology, Autonomy, and Participation: Designing Community Games and Services to Enhance Older Adults' Technology Literacy. In: *Proceedings of International Association of Societies of Design Research (IASDR)*, 2022. [[DOI](#), [Presentation](#)]
- [C1] **Houjiang Liu**, Miso Kim, Canqun He, and Tia Thomson. Autonomy as a Design Principle: Service Design for the Technology Literacy of Older Adults. In: *Proceedings of Design Culture(s) Cumulus, Cumulus*, 2021. [[DOI](#)]

POSTERS & PRESENTATIONS

Extended Abstract, Workshop, & Research Symposium (lightly reviewed)

- [P3] Anubrata Das, **Houjiang Liu**, Venelin Kovatchev, and Matthew Lease. The Need for Human-centered Design in Fact-checking Research. In: *Proceedings of the 1st Information Processing & Management (IP&M) Conference 2022*.
- [P2] **Houjiang Liu**, Enriching Family Gifts: Reciprocity in Family Relationships (Extended Abstract). *NA PhD by Design Symposium*, New York University, 2020.
- [P1] **Houjiang Liu**, Yingyin Xu, Anni Xu, How Food is Served in Early Care Center. *Northeastern University Visualization Consortium (NUVis) Demofest*. 2019.

Research & Design Showcases

- [M1] Argumentative Experience: Reducing Confirmation Bias on Controversial Issues through LLM-Generated Multi-Persona Debates. *iSchool AI Showcase: Community-Engaged Research on AI and Society*. University of Texas at Austin, 2024.
- [M1] Multi-Agentive LLM Framework to Mitigate Cognitive Biases in Information-Seeking Contexts. *Good Systems Annual Symposium, Shaping the Future of Ethical AI*. University of Texas at Austin, 2024.
- [J4] An Exploration of Service Design Metrics. *Research, Innovation, Scholarship, Entrepreneurship (RISE), Virtual EXPO*. Northeastern University, 2021.
- [J1] Design for Emergency. *5th Edition of the Italian Design Day*. The Italian Ministry of Foreign Affairs and International Cooperation, 2021.
- [C2,3] Participatory Design for Senior Healthcare: Service Design to Improve Seniors' Health Literacy and Autonomy. *Research, Innovation, Scholarship, Entrepreneurship (RISE)*. Northeastern University, 2020.

SERVICE

Peer Reviewer

3 x Recognized for Outstanding Reviews: ACM CSCW 2024 & 2025; ACM UIST 2024

- ACM SIGCHI Conference on Computer-Supported Cooperative Work & Social Computing (CSCW) 2022–25
- ACM SIGCHI Conference on User Interface Software and Technology (UIST) 2024
- Design Research Society Conference (DRS) 2024

Student Volunteer

- ACM SIGCHI Conference on Computer-Supported Cooperative Work & Social Computing (CSCW) 2024
- ACM International World Wide Web Conference (WebConf) 2023
- ACM SIGIR Conference on Human Information Interaction Retrieval (CHIIR) 2022
- User Experience Professionals Association Conference (UXPA) International 2015

Ph.D. Representative, School of Information, University of Texas at Austin

- Research Committee 2024–25
- Master Studies Committee 2021–22

TEACHING EXPERIENCE

Teaching Fellow, College of Arts, Media and Design, Northeastern University

ARTG2400 Interaction Design, Spring 2021

ARTG2401 Interaction Design Tools, Fall 2019, Spring 2020

Teaching Assistant, College of Arts, Media and Design, Northeastern University

ARTG6330 Info Design Mapping Strategies, Fall 2020

ARTG6900 Design for Dignity, Fall 2019