# **HOUJIANG LIU**

Ph.D. Student

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#### **CONTACT**

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#### **EDUCATION**

## University of Texas at Austin, School of Information, 2021 to 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**

**General:** Human-Computer Interaction, Human-centered Artificial Intelligence, Design Research; **Specific:** AI-accelerated Research Discovery, Human-centered NLP Fact-checking, Misinformation & Disinformation, Service Design for Aging

## **AWARDS**

## Best Paper Honorable Mention, ACM CSCW 2024

Recognition awarded to the top 3% of submitted papers, excluding the top 1% honored with Best Paper Awards.

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

University travel grants supporting students for presenting original research

## 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.

# **Deans' Award for Research, Scholarship, and Creative Activity**, College of Arts, Media and Design, Northeastern University, 2020

Awarded with \$1,650 to support graduate student outstanding research contributions.

## 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.

## 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**

Summer Research Grant, University of Texas at Austin, 2023
Bridges Fellowship, Center for Design, Northeastern University, 2021
Summer Research Grant, Northeastern University, 2019
Graduate Student Scholarship, Northeastern University, 2018–20
Undergrad Merit Scholarship, Jilin University, 2012–13, 15

#### **PROFESSIONAL EXPERIENCE**

#### Academic

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

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

#### **Professional**

User Experience Designer, SeetaTech, Beijing, 2017–18 Interaction Designer, JD.com, Beijing, 2015–17 Interaction Design Intern, JD.com, Beijing, Spring, 2015 Marketing Design Intern, Lenovo, Harbin, Summer, 2013 Marketing Design Intern, Midea Group, Guangdong, Summer, 2012

## PUBPLICATIONS (Authors with equal contributions are marked with †)

## **Under-reviewed Manuscripts**

- 1. **Houjiang Liu**<sup>†</sup>, Li Shi<sup>†</sup>, 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.
- Houjiang Liu, Jacek Gwizdka, and Matthew Lease. Exploring Multidimensional Checkworthiness: Designing AI-assisted Claim Prioritization for Human Factcheckers. 2024.

## Journal & Conference Papers (strictly peer-reviewed)

1. **Houjiang Liu**<sup>†</sup>, Anubrata Das<sup>†</sup>, Alexander Boltz<sup>†</sup>, 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. **Best Paper Honorable Mention (top 3%)** 

- 2. **Houjiang Liu**<sup>†</sup>, Estefania Ciliotta Chehade<sup>†</sup>, 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.
- 3. 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.
- 4. **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.
- 5. 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.
- 6. 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.
- 7. Jiabao Li, **Houjiang Liu**, Jilie Zeng, Di Wu, Ying Ding, and Alec McGail. Shifting Winds: Gendered Structures of Academic Mentorship. In: 2022 IEEE VIS Arts Program (VISAP), pp. 14–29, ieeexplore, 2022.
- 8. **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.
- 9. **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.
- 10. **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.

#### **POSTERS & PRESENTATIONS**

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

- 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.
- 2. **Houjiang Liu**, Enriching Family Gifts: Reciprocity in Family Relationships (Extended Abstract). NA PhD by Design Symposium, New York University, 2020.

## Research & Design Showcase

- 1. 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.
- Multi-Agentic 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.
- 3. An Exploration of Service Design Metrics. Research, Innovation, Scholarship, Entrepreneurship (RISE), Virtual EXPO, Northeastern University, 2021.
- 4. Participatory Design for Senior Healthcare: Service Design to Improve Seniors' Health Literacy and Autonomy. Research, Innovation, Scholarship, Entrepreneurship (RISE), Northeastern University, 2020.
- 5. How Food is Served in Early Care Center. Northeastern University Visualization Consortium (NUVis) Demofest, 2019.

#### **SERVICE**

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

Research Committee 2024–25

Master Studies Committee 2021–22

#### Paper Reviewer

ACM SIGCHI Conference on Computer-Supported Cooperative Work & Social Computing (CSCW) 2025, 24, 22

ACM SIGCHI on User Interface Software and Technology (UIST) 2024 Design Research Society Conference (DRS) 2024

Review with Special Recognition, CSCW 2025, 24, UIST 2024

## **Student Volunteer**

ACM SIGCHI Conference on Computer-Supported Cooperative Work & Social Computing (CSCW) 2024

ACM International World Wide Web Conference (WWW) 2023

ACM SIGIR Conference on Human Information Interaction and Retrieval (CHIIR) 2022 User Experience Professionals Association Conference (UXPA) International 2015

## **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