

Xinyue Chen

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Bio

I designed and developed human-AI collaborative tools to support remote and hybrid communication and collaboration in both professional and educational settings. I aim to enhance synchronous communication and collaboration by scaffolding individuals' comprehension and facilitating collective sense-making with the support of AI. I designed novel communication techniques to enhance inclusive, equitable, and accessible meeting experiences. These tools were designed to amplify marginalized voices, such as promoting active participation from underrepresented groups in STEM education or ensuring shared understanding among hearing and hard-of-hearing (DHH) users in mixed-hearing scenarios.

Research Interest

Human-Computer Interaction; Computer-supported Collaborative Work; Remote Collaboration and Communication; Virtual and hybrid meeting; Human-AI Collaboration for Collaborative Sense-making; Inclusive and equitable group.

Education

University of Michigan

PH.D. CANDIDATE, COMPUTER SCIENCE AND ENGINEERING

- Advisor: Dr. Xu Wang

Ann Arbor, MI

2021.09 - 2026.05 (expected)

Peking University

B.S IN INFORMATION MANAGEMENT

- Graduate with Honors
- undergrad research advisor: Dr. Pengyi Zhang

Beijing, China

2017.09 - 2021.06

Publications

JOURNAL PAPER

- [J.03] **Xinyue Chen**, Shuo Li, Shipeng Liu, Robin Fowler, Xu Wang. MeetScript: Transcript-based Interactions Give People Additional Participation Channels in Group Video Meetings. In Proceedings of the ACM on Human-Computer Interaction (**CSCW2023**)
- [J.02] Si Chen*, **Xinyue Chen***¹, Zhicong Lu, and Yun Huang. "My Culture, My People, My Hometown": Chinese Ethnic Minorities Seeking Cultural Sustainability by Video Blogging. In Proceedings of the ACM on Human-Computer Interaction (**CSCW2023**)
- [J.01] **Xinyue Chen**, Si Chen, Xu Wang, and Yun Huang. "I was afraid, but now I enjoy being a streamer!": Understanding the Challenges and Prospects of Using Live Video Streaming for Online Education. In Proceedings of the ACM on Human-Computer Interaction (**CSCW2021**). (**Honorable Mention Award**)

PEER-REVIEWED CONFERENCE PAPER

- [C.01] **Xinyue Chen**, Xu Wang. Towards Scaling Mixed-Methods Formative Assessments(MixFA) in Classrooms: A Clustering Pipeline to Identify Student Knowledge. In International Conference on Artificial Intelligence in Education (**AIED2022**)

WORKSHOP/POSTER/DEMO

¹* means equally contributed co-first author

[W.02] **Xinyue Chen**, Shuo Li, Shipeng Liu, Robin Fowler, Xu Wang. MeetScript: Transcript-based Interactions Give People Additional Participation Channels in Group Video Meetings. **(CSCW2023 Demo)**

[W.01] Vitaliy Popov, **Xinyue Chen**, Michael Kemp, Gurjit Sandhu, Taylor Kantor, Natalie Mateju, Xu Wang. Towards Supporting Intraoperative Coordination and Entrustment in Surgical Faculty-Resident Dyads: Looking Together is not Seeing the Same Thing. In CHI Conference on Human Factors in Computing Systems Extended Abstracts **(CHI2022 LBW)**

IN SUBMISSION

[S.03] **Xinyue Chen**, Nathan Yap, Xinyi Lu, Aylin Gunal, Xu Wang. MeetMap: Generating Dialogue Maps as Real-Time Cognitive Scaffolds for Online Meetings. **(Submitted to CHI2024)**

[S.02] Vitaliy Popov*, **Xinyue Chen***, Jingying Wang, Michael Kemp, Gurjit Sandhu, Taylor Kantor, Natalie Mateju, Xu Wang. Looking Together ≠ Seeing the Same Thing: Understanding Surgeons' Visual Needs During Intra-operative Coordination and Instruction. **(Submitted to CHI2024)**

[S.01] **Xinyue Chen**, Rehema Abulikemu, Ke Li . “Come and study with me in Hogwarts”: Current Practices and Challenges of Self-Regulated Learning in Virtual Study Room. **(Submitted to CSCW2024)**

Presentations

2023.10 . *MeetScript: Transcript-based Interactions Give People Additional Participation Channels in Group Video Meetings.* . Paper Presentation: CSCW2023, Minneapolis, U.S.A.

2022.07 . *Towards Scaling Mixed-Methods Formative Assessments(MixFA) in Classrooms: A Clustering Pipeline to Identify Student Knowledge.* Paper Presentation: AIED2022, Durham, UK.

2020.10 . *“I was afraid, but now I enjoy being a streamer!”: Understanding the Challenges and Prospects of Using Live Video Streaming for Online Education.* Paper Presentation, CSCW2020, Virtual.

Selected Project

Improve the online communication experience for hard-of-hearing (DHH) people

Ann Arbor, MI

ADVISOR: DR. XU WANG; COLLABORATOR: DHRUV JAIN

April, 2023 - Present

- Project: . We surveyed the challenges and needs of DHH people in mixed-hearing meetings and designed tools to leverage human annotation and correction of the transcript to improve the speech-to-text service quality.

Human-AI collaborative dialogue maps generation as cognitive scaffolds for meetings

Ann Arbor, MI

ADVISOR: DR. XU WANG

Sep, 2022 - Sep, 2023

- Project: Harness Large Language Models (LLMs) to devise real-time dialogue maps, visually representing structured and interconnected ideas during live meetings. This study provides insights on enhancing human-AI collaboration in note-taking and sense-making during meetings and provides design implications for involving AI in synchronous human communication activities

Research Experience

2021- now **University of Michigan**, Research Assistant, Advisor: Xu Wang

2020-2021 **University of Illinois Urbana-Champaign**, Remote Research Intern, Advisor: Yun Huang

2017-2021 **Peking University**, Undergraduate research Assistant, Advisor: Pengyi Zhang

Professional Experience

- 2020-2022 **Research Intern, Marginnote** <https://www.marginnote.com> , As a core member of the start-up team, I lead the user experience and product team to explore ways to help people with note-taking and sense-making in academic and scientific reading, integrating novel design for flash-card, mind-mapping and annotation to connect multiple documents and in-context note-taking with expanding space flexibly on PDF.

Awards, Fellowships, & Grants

- 2022.07 **Rackham Traveling Grant (\$2000)**, University of Michigan
- 2021.09 **CSE fellowship**, University of Michigan
- 2021.06 **Graduate with Honors**, Peking University
- 2020.10 **Honorable Mention Award (5%)**, ACM CSCW
- 2020.09 **Robin Li Scholarship (\$3000)**, Peking University
- 2019.09 **Merit Student**, Peking University

Teaching Experience

- Winter'23 **User Interface Development**, Graduate Student Instructor, University of Michigan, *MI, US*
- Spring'21 **Information Organization**, Teaching Assistant, Peking University, *Beijing, China*

Mentoring

- 2023 **Aylin Gunal**, Master student at University of Michigan, CSE
- 2023 **Nathan Yap**, Undergraduate student in University of Michigan, CSE
- 2022 **Shuo Li**, Undergraduate student in University of Michigan, CSE
- 2022 **Rehema Abulikemu**, Undergraduate student in Peking University
- 2021 **Ke Li**, Undergraduate student in Peking University

Academic Service

SERVICE

- 2022.05 **CHI2022**, Student Volunteer

PEER REVIEW

- CHI 2022, 2023, 2024** ,
- CSCW 2022 (Special Recognitions for Outstanding Reviews)**,
- CSCW 2023**, Associate Chair for Poster Cicle,
- CHI LBW 2021, 2022; CHI Case Study 2022;** ,

References

- Xu Wang** , xwanghci@umich.edu, Assistant Professor in University of Michigan
- Yun Huang** , yunhuang@illinois.edu, Assistant Professor in UIUC
- Pengyi Zhang** , pengyi@pku.edu.cn, Associate Professor in Peking University