Xinru Wang

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Summary

My research intersects Human-Computer Interaction (**HCI**) and **AI**, with a focus on Explainable AI (**XAI**). I iterate on the **evaluation and design of user-centered XAI systems for AI-assisted human decision-making**. My research considers the contextual relevance in fast evolving *AI models* and diverse *user interfaces*, with an emphasis on making AI explanations *collaborative*, *adaptable*, *and glanceable*.

Education

Purdue University West Lafayette, IN
Ph.D. in Computer Science Aug. 2019 – Aug. 2025
Thesis: Human-Centered Evaluation and Design of AI Explanations in AI-Assisted Decision-Making
Thesis Committee: Prof. Ming Yin (Advisor), Prof. Ninghui Li, Prof. Alexandros Psomas, Prof. Tianyi Zhang

Peking University Beijing, China
B.S. in Psychology (Dual Degree) Sept. 2016 – Jun. 2019
B.S. in Intelligence Science and Technology Sept. 2015 – Jun. 2019
Thesis: "Analysis of MOOC Forum Data towards AI Support"
Thesis Advisor: Prof. Xiaoming Li

Publications

Beyond Recommender: An Exploratory Study of the Effects of Different AI Roles in AI-Assisted Decision Making
Shuai Ma, Chenyi Zhang, **Xinru Wang**, Xiaojuan Ma, Ming Yin.
Under Review

"Let's Resolve Conflicts": A Human-AI Deliberation Framework for AI-Assisted Decision-Making
Shuai Ma, Qiaoyi Chen, **Xinru Wang**, Chengbo Zheng, Zhenhui Peng, Ming Yin, Xiaojuan Ma.
Proceedings of the CHI Conference on Human Factors in Computing Systems (CHI). 2025.

Less or More: Towards Glanceable Explanations for LLM Recommendations Using Ultra-Small Devices
Xinru Wang, Mengjie Yu, Hannah Nguyen, Michael Iuzzolino, Tianyi Wang, Peiqi Tang, Natasha Lynova, Co Tran, Ting Zhang, Naveen Sendhilnathan, Hrvoje Benko, Haijun Xia, Tanya Jonker.

Proceedings of the 30th International Conference on Intelligent User Interfaces (IUI). 2025.

Human-LLM Collaborative Annotation Through Effective Verification of LLM Labels
Xinru Wang, Hannah Kim, Sajjadur Rahman, Kushan Mitra, Zhengjie Miao.
Proceedings of the CHI Conference on Human Factors in Computing Systems (CHI). 2024.

Human-Centered Evaluation of Explanations in AI-Assisted Decision-Making
Xinru Wang.
Companion Proceedings of the 29th International Conference on Intelligent User Interfaces (IUI Doctoral Consortium). 2024.

"Are You Really Sure?" Understanding the Effects of Human Self-Confidence Calibration in AI-Assisted Decision Making
Shuai Ma, **Xinru Wang**, Ying Lei, Chuhan Shi, Ming Yin, Xiaojuan Ma.
Proceedings of the CHI Conference on Human Factors in Computing Systems (CHI). 2024.

The Effects of AI Biases and Explanations on Human Decision Fairness: A Case Study of Bidding in Rental Housing Markets
Xinru Wang, Chen Liang, Ming Yin.
Proceedings of the 32nd International Joint Conference on Artificial Intelligence (IJCAI). 2023.

Who Should I Trust: AI or Myself? Leveraging Human and AI Correctness Likelihood to Promote Appropriate Trust in AI-Assisted Decision-Making
Shuai Ma, Ying Lei, **Xinru Wang**, Chengbo Zheng, Chuhan Shi, Ming Yin, Xiaojuan Ma.
Proceedings of the 2023 CHI Conference on Human Factors in Computing Systems (CHI). 2023.

Watch Out For Updates: Understanding the Effects of Model Explanation Updates in AI-Assisted Decision Making
Xinru Wang, Ming Yin.
Proceedings of the 2023 CHI Conference on Human Factors in Computing Systems (CHI). 2023.

Will You Accept the AI Recommendation? Predicting Human Behavior in AI-Assisted Decision Making
Xinru Wang, Zhuoran Lu, Ming Yin.
Proceedings of the 2022 ACM Web Conference (WWW). 2022.

Effects of Explanations in AI-Assisted Decision Making: Principles and Comparisons
Xinru Wang, Ming Yin.
ACM Transactions on Interactive Intelligent Systems (TiiS). 2022

Are Explanations Helpful? A Comparative Study of the Effects of Explanations in AI-Assisted Decision-Making
Xinru Wang, Ming Yin.
Proceedings of the 26th International Conference on Intelligent User Interfaces (IUI). 2021.

Professional Experience

Adobe Research San Jose, CA, US
Research Intern May. 2025 - Aug. 2025
– *Mentor: Doga Dogan, Eunyee Koh*
– Build explainable interfaces to help developers and domain experts understand and optimize multi-agent workflows.

Purdue University West Lafayette, IN, US
Research Assistant Aug. 2019 - Aug. 2025
– *Advisor: Ming Yin, Assistant Professor*
– Conducted large-scale online user studies to evaluate the impact of AI explanation designs on human decision-making processes.

Meta Reality Labs Redmond, WA, US
Research Intern Sep. 2023 - Mar. 2024
– *Mentor: Anna Mengjie Yu, Tanya Jonker*
– Developed methods for delivering glanceable explanations for LLM-driven personal assistants on ultra-small devices. Research insights contributed to the development of explainable AI features on Meta's future AR device.

Megagon Labs Mountain View, CA, US
Research Intern May. 2023 - Aug. 2023
– *Mentor: Hannah Kim, Zhengjie Miao*
– Developed and evaluated a human-LLM collaborative annotation framework for natural language tasks. The findings directly contributed to the development of MEGAnno+, the company's newly released data annotation tool.

University of Michigan Ann Arbor, MI, US
Summer Research Intern Jul. 2018 - Sep. 2018
– *Advisor: Lionel Robert, Professor*
– Investigated bi-directional trust in semi-autonomous vehicles through user testing and trust modeling.

Kendall Square Capital Beijing, China
Machine Learning Intern Jan. 2019 - Apr. 2019
– Extracted time-series features from the limit order book data for prediction of mid-price movement in high frequency trading.

DiDi Beijing, China
Machine Learning Intern Sep. 2018 - Jan. 2019
– Implemented machine learning models to predict drivers' order-taken behavior and waiting-time on a million-scale database.

Selected Talks

User-Centered Evaluation and Design of AI Explanations in AI-Assisted Decision-Making
Presented at UNC Chapel Hill Feb. 2025

Human-LLM Collaborative Annotation Through Effective Verification of LLM Labels
Presented at CHI 2024 May. 2024

Human-Centered Evaluation of Explanations in AI-Assisted Decision-Making
Presented at IUI 2024 Doctoral Consortium Apr. 2024

Will You Accept the AI Recommendation? Predicting Human Behavior in AI-Assisted Decision Making
Presented at WWW 2022 Apr. 2022

Understanding Human Behavior in AI-Assisted Decision Making: Experiments and Models
Presented at MIDAS Future Leaders Summit 2022 Apr. 2022

Are Explanations Helpful? A Comparative Study of the Effects of Explanations in AI-Assisted Decision-Making
Presented at IUI 2021 Apr. 2021

Service

Program Committee
ACM Conference on Fairness, Accountability, and Transparency (FAccT): 2025, 2023
ACM Symposium on Eye Tracking Research & Applications (ETRA): 2025
ACM Conference on Intelligent User Interfaces (IUI): 2025
ACM CHI Workshop on Human-Centered Explainable AI (HCXAI): 2024, 2023, 2022

Assistant to Subcommittee Chair
ACM Conference on Human Factors in Computing Systems (CHI): 2025

Conference Reviewer
ACM Symposium on User Interface Software and Technology (UIST): 2025
ACM Conference on Human Factors in Computing Systems (CHI): 2025, 2024, 2023
ACM Conference on Human Factors in Computing Systems (CHI) Late-Breaking Work: 2025, 2024, 2023
ACM Conference on Designing Interactive Systems (DIS): 2024
ACM/IEEE International Conference on Human-Robot Interaction (HRI) alt.HRI: 2024

Journal Reviewer
IEEE Transactions on Human-Machine Systems (THMS)
ACM Transactions on Interactive Intelligent Systems (TiiS)
Transactions on Intelligent Systems and Technology (TIST)

Student Volunteer
ACM Conference on Intelligent User Interfaces (IUI): 2024
ACM Conference on Research and Development in Information Retrieval (SIGIR): 2018

Teaching

CS475 Human-Computer Interaction, Purdue University
Graduate Teaching Assistant for Prof. Ming Yin — Spring 2025
– Undergraduate-level course with 90 students.
– Developed homework questions and graded assignments.

CS471 Introduction to Artificial Intelligence, Purdue University
Head Graduate Teaching Assistant for Prof. Raymond A. Yeh — Spring 2023
– Undergraduate-level course with 200 students.
– Led a team of five Teaching Assistants, developed homework questions, graded assignments, and conducted office hours.
– Recognized with the Graduate Teaching Award in the CS Department.
Head Graduate Teaching Assistant for Prof. Ming Yin — Summer 2022, Fall 2022
Graduate Teaching Assistant for Prof. Jennifer Neville — Fall 2019

CS242 Introduction To Data Science, Purdue University
Graduate Teaching Assistant for Prof. Tony Bergstrom — Spring 2020
– Undergraduate-level course with 150 students.
– Developed homework questions.

CS38001 Python Programming, Purdue University
Graduate Teaching Assistant for Prof. Ruby Tahboub — Fall 2019, Spring 2020
– Undergraduate-level course with 70 students.

– Developed homework questions, graded assignments, and led lab sessions and office hours.

Mentoring

Songyu He (HKUST undergraduate student)	Fall 2024
Hannah Nguyen (Meta Reality Labs research assistant)	Spring 2024

Honors and Awards

NSF Student Travel Award (IUI 2024)	2024
Apple PhD Fellowship Nominee (Purdue University)	2024
Graduate Teaching Award (Purdue University)	2023
Summit Attendee and Speaker (MIDAS Future Leaders Summit)	2022
Women in Science Program Travel Grant (Purdue University)	2022
Microsoft Research PhD Fellowship Nominee (Purdue University)	2022
Academic Excellence Award (Peking University, top 10%)	2018
Fei-Xun Scholarship (Peking University)	2018
Academic Excellence Award (Peking University, top 15%)	2016
May 4th Scholarship (Peking University)	2016

Skills

Programming: Python, R, HTML/CSS/JavaScript, SQL, MATLAB, C/C++, Java
Tools & Frameworks: Flask, Pytorch, Sklearn, OpenAI, HuggingFace, Meteor
User Study: Online (AMTurk, Prolific) and in-lab
Data Analysis: Quantitative (e.g. ANOVA, regressions, SEM) and qualitative (e.g. thematic analysis)
Languages: English (GRE 162+170+3.5, TOEFL 111), Mandarin (Native)

Reference

Ming Yin (PhD Advisor)
Assistant Professor in the Department of Computer Science
Purdue University

Chen Liang
Assistant Professor of Operations and Information Management
University of Connecticut

Hannah Kim
Research Scientist
Megagon Labs

Others available upon requests.