

## RESEARCH INTERESTS

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Human-AI interaction, human-centered AI, explainable machine learning, computational social science.

## EDUCATION

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### Purdue University

Ph.D. in Computer Science, GPA: 3.93/4.00

West Lafayette, IN, USA

Aug 2019 – present

### Peking University

B.S. in Psychology, GPA: 3.51/4.00

Beijing, China

Sep 2016 – Jun 2019

### Peking University

B.S. in Intelligence Science and Technology, GPA: 3.65/4.00

Beijing, China

Sep 2015 – Jun 2019

– Thesis: “Analysis of MOOC Forum Data towards AI Support”

## PUBLICATIONS

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1. **Xinru Wang**, Ming Yin. Are Explanations Helpful? A Comparative Study of the Effects of Explanations in AI-Assisted Decision-Making. *IUI 2021*.
2. **Xinru Wang**, Ming Yin. Effects of Explanations in AI-Assisted Decision Making: Principles and Comparisons. *ACM Transactions on Interactive Intelligent Systems (TiiS)*, 2022
3. **Xinru Wang**, Zhuoran Lu, Ming Yin. Will You Accept the AI Recommendation? Predicting Human Behavior in AI-Assisted Decision Making. *WWW 2022*.
4. **Xinru Wang**, Ming Yin. Watch Out For Updates: Understanding the Effects of Model Explanation Updates in AI-Assisted Decision Making. *CHI 2023*.
5. Shuai Ma, Ying Lei, **Xinru Wang**, Chengbo Zheng, Chuhan Shi, Ming Yin, Xiaojuan Ma. Who Should I Trust: AI or Myself? Leveraging Human and AI Correctness Likelihood to Promote Appropriate Trust in AI-Assisted Decision-Making. *CHI 2023*.

## RESEARCH EXPERIENCE

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### Purdue University | Department of Computer Science

Research Assistant

West Lafayette, IN, USA

Jun 2020 – present

- Advisor: Ming Yin, Assistant Professor
- Conducted a randomized human-subject experiment to evaluate whether four types of model-agnostic explainable AI methods satisfy three desirable properties of ideal AI explanations on two types of decision-making tasks where people perceive themselves as having different levels of prior knowledge in.
- Proposed a space of three-component models (i.e. inference + utility + selection) that resemble human behavior in the setting of AI-assisted decision making.
- Conducted a human-subject experiment to study how changes in the AI explanations impact people’s perceptions and usage of the model. Analyzed underlying mechanisms using structural equation modeling.

### University of Michigan | School of Information

Summer Research Intern

Ann Arbor, MI, USA

Jul 2018 – Sep 2018

- Title: Modeling Bi-directional Trust in Semi-autonomous Vehicles for Improved System Performance
- Advisor: Lionel Robert, Associate Professor
- Extracted reaction time and eye-gaze monitoring data from a raw dataset.
- Analyzed data to investigate the correlation between trust behavior, trust, and secondary task performance of subjects. Implemented classic classification and regression methods on the dataset for trust modeling.

## WORK EXPERIENCE

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### Kendall Square Capital | Technology Department

Machine Learning Intern

Beijing, China

Jan 2019 – Apr 2019

### DiDi | Department of Smart Transportation

Machine Learning Intern

Beijing, China

Sep 2018 – Jan 2019

## TEACHING

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- **Teaching Assistant** at Purdue University Fall 2019, Spring 2020, Fall 2022  
*Python Programming (CS38001)*  
*Artificial Intelligence (CS471)*  
*Introduction to Data Science (CS242)*

## SCHOLARSHIPS AND AWARDS

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- Academic Excellence Award, Peking University (top 15%) 2015 – 2016
- May 4th Scholarship, Peking University 2015 – 2016
- Academic Excellence Award, Peking University (top 10%) 2017 – 2018
- Fei-Xun Scholarship, Peking University 2017 – 2018

## LEADERSHIP AND SERVICE

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- **Program Committee**  
*CHI workshop on human-centered XAI: 2022*
- **Conference Reviewer**  
*ACM Conference on Human Factors in Computing Systems (CHI): 2023*
- **Journal Reviewer**  
*ACM Transactions on Interactive Intelligent Systems (TiiS)*
- **Invited Attendee**  
*MIDAS Future Leaders Summit, University of Michigan, 2022*
- **Student Volunteer**  
*ACM SIGIR Conference: 2018*

## SKILLS

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- **Programming Languages:** Python, R, HTML/CSS/JavaScript, SQL, MATLAB, C/C++, Java
- **Toolkits:** Pandas, Numpy, sklearn, Meteor

## LANGUAGES

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- **English:** GRE 162+170+3.5, TOEFL 111
- **Chinese:** Native speaker
- **French:** Fresh learner