Ming Yin

Contact Information	Hall of Data Science and AI 3045 475 Stadium Mall Drive West Lafayette, IN 47907, USA	*Phone:* (+1)765-496-9381 *Email:* mingyin@purdue.edu http://www.mingyin.org

Research Interests

Human-AI interaction and collaboration, human computation and crowdsourcing, computational social science, applied artificial intelligence and machine learning, cognitive and behaviorial science.

Education

Harvard University, Cambridge, MA, USA   Sep 2011 – Jun 2017
Ph.D. in Computer Science
Thesis Title: Peeking into the On-Demand Economy: Crowd Behavior and Incentive Design
(Nominated for ACM Doctoral Dissertation Award)

City University of Hong Kong, Hong Kong, China   Aug 2009 – Dec 2009
Undergraduate Exchange Student in Computer Science

Tsinghua University, Beijing, China   Aug 2007 – Jul 2011
Bachelor of Engineering in Computer Software

Appointments

Assistant Professor   Jul 2018 – present
Purdue University, Department of Computer Science, West Lafayette, IN

Postdoctoral Researcher   Aug 2017 – Jun 2018
Microsoft Research, Computational Social Science Group, New York, NY

Research Intern   Aug 2016 – Oct 2016
Microsoft Research, Social Media Collective, Cambridge, MA

Research Intern   Jun 2015 – Aug 2015
Microsoft Research, Computational Social Science Group, New York, NY

Research Intern   Jun 2014 – Aug 2014
PARC, Collective Intelligence and Service Computing Group, Webster, NY

Research Intern   Jun 2013 – Aug 2013
Xerox Research, Social and Web Technology Group, Webster, NY

Research Intern   Mar 2011 – Jul 2011
Baidu Inc., Ads Research Team, Beijing, China

Honors and Awards

NSF Faculty Early Career Development (CAREER) Award	2024
Purdue College of Science Leadership Award	2024
Purdue Seed for Success Acorn Award	2024
Best Paper Honorable Mention, CHI	2024
Best Paper Award, CSCW	2022
Best Paper Award, CHI	2022
Best Paper Award, HCOMP	2020
Purdue Vertically Integrated Projects (VIP) Program Faculty Mentor Award	2020
Best Paper Honorable Mention, CHI	2019
Microsoft Research Faculty Fellowship Finalist	2019
ACM Doctoral Dissertation Award Nomination	2018
Siebel Scholar, the Siebel Foundation	2017
Best Paper Honorable Mention, CHI	2016

NSF Student Travel Award, AAMAS	2015
Certificate of Distinction in Teaching, Harvard University	2013
Graduate Student Fellowship, Harvard University	2011
Beijing Outstanding Graduate, Beijing Municipal Commission of Education	2011
Tsinghua University Outstanding Graduate, Tsinghua University	2011
Tsinghua's Friend – Widjaja Scholarship, Tsinghua University	2009
National Southwest Associated University Scholarship, Tsinghua University	2008

PUBLICATIONS   In most cases, my collaborators and I choose to have students as first authors and then determine the authorship alphabetically.

Refereed Conference and Journal Publications

Syed Hasan Amin Mahmood, Ming Yin, Rajiv Khanna. On the Support Vector Effect in DNNs: Rethinking Data Selection and Attribution. In *Proceedings of the 31st SIGKDD Conference on Knowledge Discovery and Data Mining (KDD)*, Toronto, Canada, August 2025.

Zhuoyan Li, Ming Yin. Utilizing Human Behavior Modeling to Manipulate Explanations in AI-Assisted Decision Making: The Good, the Bad, and the Scary. In *Proceedings of the 38th Annual Conference on Neural Information Processing Systems (NeurIPS)*, Vancouver, Canada, December 2024.

Jinwei Lu, Yikuan Yan, Keman Huang, Ming Yin, Fang Zhang. Do We Learn From Each Other: Understanding the Human-AI Co-Learning Process Embedded in Human-AI Collaboration. In *Group Decision and Negotiation*. (Accepted in November 2024)

Zhuoyan Li, Chen Liang, Jing Peng, Ming Yin. How Does the Disclosure of AI Assistance Affect the Perceptions of Writing? In *Proceedings of the 2024 Conference on Empirical Methods in Natural Language Processing (EMNLP)*, Miami, FL, November 2024.

Zhuoran Lu, Dakuo Wang, Ming Yin. Does More Advice Help? The Effects of Second Opinions in AI-Assisted Decision Making. In *Proceedings of the ACM on Human-Computer Interaction: Computer-Supported Cooperative Work and Social Computing (CSCW)*, November 2024.

Zhuoran Lu, Syed Hasan Amin Mahmood, Zhuoyan Li, Ming Yin. Mix and Match: Characterizing Heterogeneous Human Behavior in AI-assisted Decision Making. In *Proceedings of the 12th AAAI Conference on Human Computation and Crowdsourcing (HCOMP)*, Pittsburgh, PA, October 2024.

Syed Hasan Amin Mahmood, Zhuoran Lu, Ming Yin. Designing Behavior-Aware AI to Improve the Human-AI Team Performance in AI-Assisted Decision Making. In *Proceedings of the 33rd International Joint Conference on Artificial Intelligence (IJCAI)*, Jeju, South Korea, August 2024.

Jay Barot, Ali Allami, Ming Yin, Dan Lin. ToneCheck: Unveiling the Impact of Dialects in Privacy Policy. In *Proceedings of the 29th ACM Symposium on Access Control Models and Technologies (SACMAT)*, San Antonio, TX, May 2024.

Zhuoyan Li, Chen Liang, Jing Peng, Ming Yin. The Value, Benefits, and Concerns of Generative AI-Powered Assistance in Writing. In *Proceedings of the 42nd ACM Conference on Human Factors in Computing Systems (CHI)*, Honolulu, HI, May 2024. (Best Paper Honorable Mention)

Shuai Ma, Xinru Wang, Ying Lei, Chunhan Shi, Ming Yin, Xiaojuan Ma. "Are You Really Sure?": Understanding the Effects of Human Self-Confidence Calibration in AI-Assisted Decision Making. In *Proceedings of the 42nd ACM Conference on Human Factors in Computing*

Systems (CHI), Honolulu, HI, May 2024.

Abdullah Almaatouq, Mohammed Alsobay, Ming Yin, Duncan J. Watts. The Effects of Group Composition and Dynamics on Collective Performance. *Topics in Cognitive Science (topiCS)*, 16(2), pages 302-321, April 2024.

Chun-Wei Chiang, Zhuoran Lu, Zhuoyan Li, Ming Yin. Enhancing AI-Assisted Group Decision Making through LLM-Powered Devil's Advocate. In *Proceedings of the 29th ACM Conference on Intelligent User Interfaces (IUI)*, Greenville, SC, March 2024.

Chowdhury Mohammad Rakin Haider, Chris Clifton, Ming Yin. Do Crowdsourced Fairness Preferences Correlate with Risk Perceptions? In *Proceedings of the 29th ACM Conference on Intelligent User Interfaces (IUI)*, Greenville, SC, March 2024.

Zhuoyan Li, Zhuoran Lu, Ming Yin. Decoding AI's Nudge: A Unified Framework to Predict Human Behavior in AI-assisted Decision Making. In *Proceedings of the 38th AAAI Conference on Artificial Intelligence (AAAI)*, Vancouver, Canada, February 2024.

Shan Gao, Zhuoran Lu, Hao Luan, Ming Yin, Lei Wang. AI Pilot in the Cockpit: An Investigation of Public Acceptance. In *International Journal of Human-Computer Interaction (IJHCI)*. (Accepted in December 2023)

Zhuoyan Li, Hangxiao Zhu, Zhuoran Lu, Ming Yin. Synthetic Data Generation with Large Language Models for Text Classification: Potential and Limitations. In *Proceedings of the 2023 Conference on Empirical Methods in Natural Language Processing (EMNLP)*, Singapore, December 2023.

Zhuoran Lu, Zhuoyan Li, Chun-Wei Chiang, Ming Yin. Strategic Adversarial Attacks in AI-assisted Decision Making to Reduce Human Trust and Reliance. In *Proceedings of the 32nd International Joint Conference on Artificial Intelligence (IJCAI)*, Macao, China, August 2023.

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

Saumik Narayanan, Guanghui Yu, Chien-Ju Ho, Ming Yin. How Does Value Similarity Affect Human Reliance in AI-Assisted Ethical Decision Making? In *Proceedings of the 6th AAAI/ACM Conference on AI, Ethics, and Society (AIES)*, Montreal, Canada, August 2023.

Maria Leonor Pacheco, Tunazzina Islam, Lyle Ungar, Ming Yin, Dan Goldwasser. Interactive Concept Learning for Uncovering Latent Themes in Large Text Collections. In *Findings of the 61st Annual Meeting of the Association for Computational Linguistics (ACL)*, Toronto, Canada, July 2023.

Chun-Wei Chiang, Zhuoran Lu, Zhuoyan Li, Ming Yin. Are Two Heads Better Than One in AI-Assisted Decision Making? Comparing the Behavior and Performance of Groups and Individuals in Human-AI Collaborative Recidivism Risk Assessment. In *Proceedings of the 41st ACM Conference on Human Factors in Computing Systems (CHI)*, Hamburg, Germany, April 2023.

Xinru Wang, Ming Yin. Watch Out for Updates: Understanding the Effects of Model Explanation Updates in AI-Assisted Decision Making. In *Proceedings of the 41st ACM Conference on Human Factors in Computing Systems (CHI)*, Hamburg, Germany, April 2023.

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. In *Proceedings of the 41st ACM Conference on Human Factors in Computing Systems (CHI)*, Hamburg, Germany, April 2023.

Zhuoyan Li, Zhuoran Lu, Ming Yin. Modeling Human Trust and Reliance in AI-assisted Decision Making: A Markovian Approach. In *Proceedings of the 37th AAAI Conference on Artificial Intelligence (AAAI)*, Washington, DC, February 2023. **(Oral Presentation)**

Xinru Wang, Ming Yin. Effects of Explanations in AI-Assisted Decision Making: Principles and Comparisons. *ACM Transactions on Interactive Intelligent Systems (TiiS)*, 12(4), November 2022. **(Special Issue on Highlights of IUI 2021)**

Zhuoran Lu, Patrick Li, Weilong Wang, Ming Yin. The Effects of AI-based Credibility Indicators on the Detection and Spread of Misinformation under Social Influence. In *Proceedings of the ACM on Human-Computer Interaction: Computer-Supported Cooperative Work and Social Computing (CSCW)*, November 2022. **(Best Paper Award)**

Amy Rechkemmer, Ming Yin. Understanding the Microtask Crowdsourcing Experience for Workers with Disabilities: A Comparative View. In *Proceedings of the ACM on Human-Computer Interaction: Computer-Supported Cooperative Work and Social Computing (CSCW)*, November 2022.

Meric Altug Gemalmaz, Ming Yin. Understanding Decision Subjects' Fairness Perceptions and Retention in Repeated Interactions with AI-Based Decision Systems. In *Proceedings of the 5th AAAI/ACM Conference on AI, Ethics, and Society (AIES)*, Oxford, UK, August 2022.

Zhuoyan Li, Zhuoran Lu, Ming Yin. Towards Better Detection of Biased Language with Scarce, Noisy, and Biased Annotations. In *Proceedings of the 5th AAAI/ACM Conference on AI, Ethics, and Society (AIES)*, Oxford, UK, August 2022.

Saumik Narayanan, Guanghui Yu, Wei Tang, Chien-Ju Ho, Ming Yin. How Does Predictive Information Affect Human Ethical Preferences? In *Proceedings of the 5th AAAI/ACM Conference on AI, Ethics, and Society (AIES)*, Oxford, UK, August 2022.

Maria Leonor Pacheco, Tunazzina Islam, Monal Mahajan, Andrey Shor, Ming Yin, Lyle Ungar, Dan Goldwasser. A Holistic Framework for Analyzing the COVID-19 Vaccine Debate. In *Proceedings of the Conference of the North American Chapter of the Association for Computational Linguistics (NAACL)*, Seattle, WA, July 2022.

Amy Rechkemmer, Ming Yin. When Confidence Meets Accuracy: Exploring the Effects of Multiple Performance Indicators on Trust in Machine Learning Models. In *Proceedings of the 40th ACM Conference on Human Factors in Computing Systems (CHI)*, New Orleans, LA, April 30 – May 6, 2022. **(Best Paper Award)**

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

Xiaoni Duan, Chien-Ju Ho, Ming Yin. The Influences of Task Design on Crowdsourced Judgement: A Case Study of Recidivism Risk Evaluation. In *Proceedings of the ACM Web Conference (WWW)*, Online, April 2022.

Guoyang Zhou, Vaneet Aggarwal, Ming Yin, Denny Yu. A Computer Vision Approach for Estimating Lifting Load Contributors to Injury Risk. *IEEE Transactions on Human-Machine Systems (THMS)*, 52(2), April 2022.

Chun-Wei Chiang, Ming Yin. Exploring the Effects of Machine Learning Literacy Interventions on Laypeople's Reliance on Machine Learning Models. In *Proceedings of the 27th ACM International Conference on Intelligent User Interfaces (IUI)*, Online, March 2022.

Guoyang Zhou, Vaneet Aggarwal, Ming Yin, Denny Yu. Video-based AI Decision Support System for Lifting Risk Assessment. In *Proceedings of the IEEE International Conference on Systems, Man, and Cybernetics (SMC)*, Online, October 2021.

Abdullah Almaatouq, Mohammed Alsobay, Ming Yin, Duncan J. Watts. Task Complexity Moderates Group Synergy. *Proceedings of the National Academy of Sciences (PNAS)*, 118(36), September 2021.

Meric Altug Gemalmaz, Ming Yin. Accounting for Confirmation Bias in Crowdsourced Label Aggregation. In *Proceedings of the 30th International Joint Conference on Artificial Intelligence (IJCAI)*, Online, August 2021.

Chun-Wei Chiang, Ming Yin. You'd Better Stop! Understanding Human Reliance on Machine Learning Models under Covariate Shift. In *Proceedings of the 13th ACM Web Science Conference (WebSci)*, Online, June 2021.

Zhuoran Lu, Ming Yin. Human Reliance on Machine Learning Models When Performance Feedback is Limited: Heuristics and Risks. In *Proceedings of the 39th ACM Conference on Human Factors in Computing Systems (CHI)*, Online, May 2021.

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

Amy Rechkemmer, Ming Yin. Motivating Novice Crowd Workers Through Goal Setting: An Investigation into the Effects on Complex Crowdsourcing Task Training. In *Proceedings of the 8th AAAI Conference on Human Computation and Crowdsourcing (HCOMP)*, Hilversum, Netherlands, October 2020. **(Best Paper Award)**

Xiaoni Duan, Chien-Ju Ho, Ming Yin. Does Exposure to Diverse Perspectives Mitigate Biases in Crowdwork? An Explorative Study. In *Proceedings of the 8th AAAI Conference on Human Computation and Crowdsourcing (HCOMP)*, Hilversum, Netherlands, October 2020.

Xiao Hu, Haobo Wang, Anirudh Vegesana, Somesh Dube, Kaiwen Yu, Gore Kao, Shuo-Han Chen, Yung-Hsiang Lu, George Thiruvathukal, Ming Yin. Crowdsourcing Detection of Sampling Biases in Image Datasets. In *Proceedings of the Web Conference (WWW)*, Taipei, April 2020.

Keman Huang, Jinhui Yao, Ming Yin. Understanding the Skill Provision in Gig Economy from a Network Perspective: A Case Study of Fiverr. In *Proceedings of the ACM on Human-Computer Interaction: Computer-Supported Cooperative Work and Social Computing (CSCW)*, Austin, TX, November 2019.

Wei Tang, Chien-Ju Ho, Ming Yin. Leveraging Peer Communication to Enhance Crowdsourcing. In *Proceedings of the Web Conference (WWW)*, San Francisco, CA, May 2019.

Ming Yin, Jennifer Wortman Vaughan, Hanna Wallach. Understanding the Effect of Accuracy on Trust in Machine Learning Models. In *Proceedings of the 37th ACM Conference on Human Factors in Computing Systems (CHI)*, Glasgow, UK, May 2019. **(Best Paper Honorable Mention)**

Ming Yin, Siddharth Suri, Mary Gray. Running Out of Time: The Impact and Value of Flexibil-

ity in On-Demand Crowdwork. In *Proceedings of the 36th ACM Conference on Human Factors in Computing Systems (CHI)*, Montreal, Canada, April 2018.

Ming Yin, Yiling Chen. Predicting Crowd Work Quality under Monetary Interventions. In *Proceedings of the 4th AAAI Conference on Human Computation and Crowdsourcing (HCOMP)*, Austin, TX, October 30 – November 3, 2016.

Edith Law, Ming Yin, Joslin Goh, Kevin Chen, Michael Terry, Krzysztof Z. Gajos. Curiosity Killed the Cat, but Makes Crowdwork Better. In *Proceedings of the 34th ACM Conference on Human Factors in Computing Systems (CHI)*, San Jose, CA, May 2016. **(Best Paper Honorable Mention)**

Ming Yin, Mary Gray, Siddharth Suri, Jennifer Wortman Vaughan. The Communication Network Within the Crowd. In *Proceedings of the 25th International World Wide Web Conference (WWW)*, Montreal, Canada, April 2016.

Ming Yin, Yiling Chen. Bonus or Not? Learn to Reward in Crowdsourcing. In *Proceedings of the 24th International Joint Conference on Artificial Intelligence (IJCAI)*, Buenos Aires, Argentina, July 2015.

Ming Yin, Yu-An Sun. Human Behavior Models for Virtual Agents in Repeated Decision Making under Uncertainty. In *Proceedings of the 14th International Conference on Autonomous Agents & Multiagent Systems (AAMAS)*, Istanbul, Turkey, May 2015.

Ming Yin, Yiling Chen, Yu-An Sun. Monetary Interventions in Crowdsourcing Task Switching. In *Proceedings of the 2nd AAAI Conference on Human Computation and Crowdsourcing (HCOMP)*, Pittsburgh, PA, November 2014.

Ming Yin, Yiling Chen, Yu-An Sun. The Effects of Performance-Contingent Financial Incentives in Online Labor Markets. In *Proceedings of the 27th AAAI Conference on Artificial Intelligence (AAAI)*, Bellevue, WA, July 2013.

Yang Sun, Yunhong Zhou, Ming Yin, Xiaotie Deng. On the Convergence and Robustness of Reserve Pricing in Keyword Auctions. In *Proceedings of the 14th International Conference on Electronic Commerce (ICEC)*, Singapore, August 2012.

Ming Yin, Peibei Shi, Wangshu Zhang, Rui Jiang. Optimizing Subnetwork Markers for the Classification of Breast Cancer Metastases: A Simulated Annealing Strategy. In *Proceedings of 2011 International Conference on Medical Information and Bioengineering (ICMIB)*, Chengdu, China, January 2011.

Xiaotie Deng, Yang Sun, Ming Yin, Yunhong Zhou. Mechanism Design for Multi-slot Ads Auction in Sponsored Search Markets. In *Proceedings of the 4th International Frontiers in Algorithmics Workshop (FAW)*, Wuhan, China, August 2010.

Workshop Papers, Posters and Extended Abstracts

Mohammed Alsobay, Ming Yin, Abdullah Almaatouq. The Effect of Social Information on Trust and Efficacy in AI-assisted Prediction. In *the 10th International Conference on Computational Social Science (IC2S2)*, Philadelphia, PA, July 2024.

Syed Hasan Amin Mahmood, Zhuoran Lu, and Ming Yin. Give Weight to Human Reactions: Optimizing Complementary AI in Practical Human-AI Teams. In *the ICML Workshop on Artificial Intelligence & Human Computer Interaction*, Honolulu, HI, July 2023.

Zhuoran Lu, Dakuo Wang, Ming Yin. Does More Advice Help? The Effects of Second Opinions

from Peers in AI-Assisted Decision Making. In *the CHI Workshop on Trust and Reliance in AI-Assisted Tasks (TRAIT)*, Hamburg, Germany, April 2023.

Maria Leonor Pacheco, Tunazzina Islam, Lyle Ungar, Ming Yin, Dan Goldwasser. An Interactive Framework for Identifying Latent Themes in Large Text Collections. In *the 2nd NeurIPS Workshop on Interactive Learning for Natural Language Processing (InterNLP)*, New Orleans, LA, December 2022.

Maria Leonor Pacheco, Tunazzina Islam, Lyle Ungar, Ming Yin, Dan Goldwasser. Interactively Uncovering Latent Arguments in Social Media Platforms: A Case Study on the Covid-19 Vaccine Debate. In *the 4th EMNLP Workshop on Data Science with Human in the Loop (DaSH)*, Abu Dhabi, the United Arab Emirates, December 2022.

Guoyang Zhou, Vaneet Aggarwal, Ming Yin, Denny Yu. Computer Vision Predicts Force During Lifting. In *the 66th Human Factors and Ergonomics Society Annual Meeting*, Atlanta, GA, October 2022.

Chien-Ju Ho, Ming Yin. Designing and Optimizing Cognitive Debiasing Strategies for Crowdsourcing Annotation. In *the CSCW Workshop on Investigating and Mitigating Biases in Crowdsourced Data (BCD)*, Online, October 2021.

Amy Rechkemmer, Ming Yin. Exploring the Effects of Goal Setting When Training for Complex Crowdsourcing Tasks. In *the 30th International Joint Conference on Artificial Intelligence (IJCAI)*, Online, August 2021. (Sister Conferences Track)

Xiao Hu, Haobo Wang, Somesh Dube, Anirudh Vegesana, Kaiwen Yu, Yung-Hsiang Lu, Ming Yin. Discovering Biases in Image Datasets with the Crowd. In *the 7th AAAI Conference on Human Computation and Crowdsourcing (HCOMP)*, Skamania Lodge, WA, October 2019. (Work in progress track)

Ming Yin, Duncan Watts. Human Complex Problem Solving: The Case of Constraint Satisfaction Optimization Problems. In *the 5th International Conference on Computational Social Science (IC2S2)*, Amsterdam, Netherlands, July 2019.

Abdullah Almaatouq, Ming Yin, Duncan Watts. Optimal Team Construction for a Complex Task. In *the 5th International Conference on Computational Social Science (IC2S2)*, Amsterdam, Netherlands, July 2019.

Ming Yin, Emma Heikensten, Yiling Chen. Is Time Our Friend or Enemy? The Impact of Timing on Online Experimentation. In *the 2018 Conference on Digital Experimentation (CODE)*, Cambridge, MA, October 2018.

Ming Yin, Jennifer Wortman Vaughan, Hanna Wallach. Does Stated Accuracy Affect Trust in Machine Learning Algorithms? In *the 3rd ICML Workshop on Human Interpretability in Machine Learning (WHI)*, Stockholm, Sweden, July 2018.

Ming Yin, Siddharth Suri, Mary L. Gray. The Impact and Value of Flexibility in On-Demand Work. In *the 2017 Conference on Digital Experimentation (CODE)*, Cambridge, MA, October 2017.

Edith Law, Ming Yin, Joslin Goh, Kevin Chen, Michael Terry, Krzysztof Z. Gajos. Curiosity Killed the Cat, but Makes Crowdwork Better. In *the 2016 Conference on Digital Experimentation (CODE)*, Cambridge, MA, October 2016.

Mary Gray, Siddharth Suri, Ming Yin, Jennifer Wortman Vaughan, Syed Shoaib Ali, Deepti Kulkarni. The Collaboration and Communication Networks within the Crowd. In *the 2nd In-*

ternational Conference on Computational Social Science (IC2S2), Evanston, IL, June 2016.

Ming Yin, Yiling Chen, Yu-An Sun. Task Sequence Design: Evidence on Price and Difficulty. In *the 1st AAAI Conference on Human Computation and Crowdsourcing (HCOMP)*, Palm Springs, CA, November 2013. (Work in progress track)

Other Publications

Ming Yin. Peeking into the On-Demand Economy: Crowd Behavior and Incentive Design. *Ph.D. Dissertation*, School of Engineering and Applied Sciences, Harvard University, June 2017.

PATENTS   Method and Apparatus for Recommending a Selection between a Reseller and a Multi-sided Platform, with Yu-An Sun, US Patent Application Number 14/161393.

TEACHING   **Instructor**, Purdue University
- CS 573 (Data Mining)   Spring 2019, Fall 2019, Fall 2020, Fall 2021, Fall 2023, Fall 2024
- CS 592 (Human-AI Interaction)   Spring 2024
- CS 471 (Introduction to Artificial Intelligence)   Fall 2022
- CS 490 – HCI (Human-Computer Interaction)   Spring 2021
- CS 590 – HCC (Human-Centered Computing)   Spring 2020
- CS 590 – CSC (Crowdsourcing and Social Computing)   Fall 2018

Guest Lecturer, Purdue University
- CS 197 (Freshman Honors Seminar)   Spring 2024, Spring 2022
- SCI 195 (Global Science Leadership Seminar)   Fall 2023
- CS 591 – RS1 (Research Seminar for First Year Graduate Students)   Fall 2018

Guest Lecturer, Harvard University
- CS 280r (Advanced Topics in Artificial Intelligence)   Spring 2015, Spring 2017

Teaching Fellow, Harvard University
- CS 182 (Intelligent Machines: Reasoning, Actions and Plans)   Fall 2013, Fall 2014
- AM 121 (Introduction to Optimization: Models and Methods)   Spring 2013

RESEARCH   **Ph.D. Research Advising**
ADVISING

Amy E. Rechkemmer   Aug 2018 – present
- Topic: Identify barriers and design interventions for fostering data worker inclusion and well-being
- Passed preliminary exam, May 2023
- Recipient of the Ross Fellowship
- Received Best Paper Award at HCOMP 2020 and CHI 2022
- Selected to attend the Heidelberg Laureate Forum in 2024
- Selected to attend the Future Leaders Summit organized by Michigan Institute for Data Science, April 2022

Zhuoran Lu   Aug 2019 – present
- Topic: Understanding, modeling, and designing for human-AI collaborations in AI-assisted decision making
- Passed preliminary exam, Jan 2024
- Recipient of the Frederick N. Andrews Fellowship
- Recipient of the Bilsland Dissertation Fellowship
- Received Best Paper Award at CSCW 2022

Xinru Wang   Aug 2019 – present

- Topic: Human-centered design and evaluation of explainable AI methods
- Passed preliminary exam, Apr 2024
- Selected to attend the Future Leaders Summit organized by Michigan Institute for Data Science, April 2022

Xiaoni Duan   Aug 2019 – present
- Topic: Task design for objective and subjective crowdsourced data collection
- Passed preliminary exam, Apr 2024

Meric Altug Gemalmaz   Jan 2020 – present
- Topic: Examining fairness in the machine learning pipeline from a human-in-the-loop perspective
- Passed preliminary exam, Nov 2023
- Recipient of the Graduate Teaching Award, 2022
- Recipient of the Raymond Boyce Graduate Teaching Award, 2020

Chun-Wei Chiang   Jan 2020 – present
- Topic: Enhancing AI-assisted decision making for individuals and groups
- Passed preliminary exam, Jan 2024

Zhuoyan Li   Aug 2021 – present
- Topic: Computational models and intelligent interventions in human-AI interaction
- Received Best Paper Honorable Mention Award at CHI 2024

Syed Hasan Amin Mahmood   Aug 2021 – present
- Co-advised with Professor Rajiv Khanna
- Topic: Accounting for human behavior in AI design to enhance human-AI complementarity

Undergraduate Research Advising

Anirudh Vegesana   Jun 2019 – Jun 2020
- Topic: Crowdsourcing detection of sampling biases in image datasets
- Next position: Master student at Stanford University

Kaiwen Yu   Jun 2019 – Jun 2020
- Topic: Crowdsourcing detection of sampling biases in image datasets
- Next position: Master student at University of California, Berkeley

Gore Kao   Jan 2019 – Jun 2020
- Topic: Crowdsourcing detection of sampling biases in image datasets
- Next position: Master student at Carnegie Mellon University

Xiao Hu   Jan 2019 – Jun 2020
- Topic: Crowdsourcing detection of sampling biases in image datasets
- Received the Outstanding Research Effort by an Undergraduate Award in Department of Computer Science, Purdue University, April 2020
- Next position: Master student at Purdue University

Haobo Wang   Jan 2019 – Jun 2020
- Topic: Crowdsourcing detection of sampling biases in image datasets
- Next position: Master student at Purdue University

Siddharth R. Shah   Jan 2019 – May 2019
- Topic: Understanding the effects of performance indicators on people's trust in AI models

Modeling Interaction Dynamics to Promote Human-AI Complementarity in Decision Making.

Econometrics Seminar, University of California, San Diego. — Oct 2024

IDEAL Workshop on Theoretical Foundations of Human-AI Complementarity, Invited talk, Evanston, IL. — Sep 2024

Accounting for Human Engagement Behavior to Enhance AI-Assisted Decision Making.

HCI Seminar on People, Computers, and Design, Stanford University. — Oct 2024

The AAAI Spring Symposium on Bi-directionality in Human-AI Collaborative Systems, Invited talk, Stanford, CA. — Mar 2024

Empowering Humans, Enhancing AI: Toward Effective Human-AI Partnership.

Human-Computer Interaction Institute, Carnegie Mellon University. — Mar 2024

Towards a Science of Human-AI Decision Making: Empirical Understandings, Computational Models, and Intervention Designs.

Artificial Intelligence Seminar, University of Michigan, Ann Arbor. — Mar 2024

Human-Computer Interaction Seminar, University of Illinois, Urbana-Champaign. — Feb 2024

Human-Computer Interaction Lab, University of Maryland, College Park. — Oct 2023

Human-AI Group, University of California, Irvine. — May 2023

Mind & Machine Intelligence Summit, University of California, Santa Barbara. — Apr 2023

Human-Centered Evaluation of Explanations in AI-Assisted Decision-Making.

The IJCAI Workshop on Explainable Artificial Intelligence, Keynote, Macau, China. Aug 2023

Mitigating Biases in Crowdsourcing Data Collection.

The 6th IEEE Workshop on Human-in-the-Loop Methods and Future of Work in Big Data, Keynote, Osaka, Japan (Online). — Dec 2022

The 3rd Symposium on Biases in Human Computation and Crowdsourcing, Keynote, Delft, Netherlands (Online). — Nov 2021

Are Explanations Helpful? A Comparative Study of the Effects of Explanations in AI-Assisted Decision Making.

Human-AI Lab, University of Chicago. — Mar 2021

Making Better Use of the Crowd to Enhance AI.

Computer Science Seminar, University of Notre Dame. — Oct 2020

Understanding Human Trust in Machine Learning through Behavioral Experiments.

Computational Social Science Satellite, Keynote, Conference on Complex Systems. — Dec 2020

Mathematical and Computational Psychology Colloquium, Purdue University. — Jan 2020

Computer Science Colloquium. Northwestern University. — Oct 2019

Towards Effective Human-AI Partnership.

Statistics Colloquium, Purdue University. — Dec 2019

Peeking into the On-Demand Economy.

Marketing Seminar, Yale University. — Nov 2018

ACM New York City Meetup, New York, NY. — Jun 2018

Data Science Seminar, University of Massachusetts at Amherst. — Mar 2017

Computer Science Seminar, Boston College. — Mar 2017

Computer Science Colloquium, Simon Fraser University. — Mar 2017

Information Science Colloquium, Cornell University. — Feb 2017

Microsoft Research, New York, NY. — Feb 2017

Computer Science Colloquium, Purdue University. — Feb 2017

Computer Science Colloquium, University of Waterloo.   Feb 2017

Designing Incentives for Humans in the Loop.
Image and Video Computing Seminar, Boston University.   Nov 2016

Media Coverage

Writers accept lower pay when they use AI to help with their work, *New Scientist*.   Jun 2024
Yin earns NSF CAREER award, *Purdue CS News*.   May 2024
Enabling intentional human engagement with AI, *ACM Ubiquity*.   Mar 2024
NSF funds institute to research AI-powered cybersecurity, *Purdue News*.   May 2023
Purdue CS researchers present four papers at AAAI, *Purdue CS News*.   Feb 2023
AI-based credibility indicators for fighting fake news, *Purdue CS News*.   Oct 2022
Is teamwork always the most effective way to complete tasks? *World Economic Forum*.
                    Oct 2021
Which tasks are best for teams and which should be tackled solo? *Yahoo! Tech*.   Oct 2021
Are teams better than individuals at getting work done? *Knowledge at Wharton*.   Oct 2021
Fairness in machine learning: Purdue joins $1M NSF fairness in AI program, *Purdue CS News*.
                    Mar 2021
Neville, Tan & Yin to speak at women in data science, *Purdue CS News*.   Feb 2019
The shape of work to come, *Nature News Feature*.   Oct 2017

Leadership and Service

Steering Committee
The AAAI Conference on Human Computation and Crowdsourcing (HCOMP): 2023 – 2024

Conference & Program Committee Co-Chairs
The 10th AAAI Conference on Human Computation and Crowdsourcing (HCOMP): 2022

Organizing Committees
AAAI Conference on Human Computation and Crowdsourcing (HCOMP)
- Doctoral symposium Co-chair; 2019
- CrowdCamp Co-chair; 2018
- Website Co-Chair; 2017
ACM Conference on Human Factors in Computing Systems (CHI)
- Co-organizer; Designing for Curisoity: An Interdisciplinary Workshop, 2017

Program Subcommittee Chairs
ACM Conference on Human Factors in Computing Systems (CHI), the "Understanding People – Statistical and Quantitative Methods" subcommittee: 2025

Area Chairs
AAAI Conference on Artificial Intelligence (AAAI): 2023
ACM Conference on Fairness, Accountability, and Transparency (FAccT): 2023, 2024, 2025

Senior Program Committees/Associate Chairs
The Web Conference (WWW): 2023
AAAI Conference on Artificial Intelligence (AAAI): 2022
ACM Conference on Human Factors in Computing Systems (CHI): 2020, 2021, 2022, 2024
AAAI Conference on Human Computation and Crowdsourcing (HCOMP): 2020

Program Committees
AAAI Conference on Artificial Intelligence (AAAI): 2019, 2020, 2021
International Joint Conference on Artificial Intelligence (IJCAI): 2019, 2020, 2021, 2022, 2023
The Web Conference (WWW): 2018, 2019, 2021, 2022
ACM Conference on Economics and Computation (EC): 2019, 2020
IEEE/ACM International Conference on Advances in Social Networks Analysis and Mining (ASONAM): 2019
The Pacific-Asia Conference on Knowledge Discovery and Data Mining (PAKDD): 2017, 2018

The Workshop on Trust and Reliance in Evolving Human-AI Workflows (@CHI): 2024
The Workshop on Fairness and Robustness in Machine Learning for Ubiquitous Computing (@UbiComp): 2023
The Workshop on Human-Centered AI (@NeurIPS): 2022
The Workshop on Human-Machine Collaboration and Teaming (@ICML): 2022
The Workshop on Trust and Reliance in AI-Human Teams (@CHI): 2022, 2023
The Workshop on Behavioral Economics and Computation (@EC): 2019, 2020
The Workshop on Human-in-the-loop Methods and Human Machine Collaboration in Big Data (@IEEE BigData): 2019
The Workshop on Human Computation for Image and Video Analysis (@HCOMP): 2017

Conference Reviewer
ACM Conference on Human Factors in Computing Systems (CHI): 2014, 2017, 2018, 2019
ACM Conference on Computer-Supported Cooperative Work (CSCW): 2015, 2018, 2019, 2021, 2024
ACM Symposium on User Interface Software and Technology (UIST): 2019, 2020
The Conference on Empirical Methods in Natural Language Processing (EMNLP): 2024
The Conference on Neural Information Processing Systems (NeurIPS): 2021
ACM Conference on Economics and Computation (EC): 2016
The Conference on Web and Internet Economics (WINE): 2012
International World Wide Web Conference (WWW): 2011
The International Colloquium on Automata, Languages and Programming (ICALP): 2010

Journal Reviewer
Science Advances
Nature Machine Intelligence
Artificial Intelligence Journal (AIJ)
Journal of Artificial Intelligence Research (JAIR)
ACM Transactions on Computer-Human Interaction (TOCHI)
ACM Transactions on Social Computing (TSC)
ACM Transactions on Intelligent Systems and Technology (TIST)
IEEE Transactions on Knowledge and Data Engineering (TKDE)
International Journal of Human-Computer Interaction (IJHCI)
Computational Brain & Behavior

Student Organizer
Harvard EconCS Seminar   2013 – 2014

Graduate Student Mentor
SEAS Connect Program, Harvard University   2013 – 2014
GSAS Host Student Program, Harvard University   2012 – 2013

President
Student Association of Science and Technology (SAST), School of Software, Tsinghua University
                                                                                                     2010 – 2011