

# Yaxing Yao

☎ 206.747.8867  
✉ yaxing@jhu.edu  
🌐 www.cs.jhu.edu/~yaxing/

## Research Interests

Investigating privacy needs and behaviors of diverse stakeholders' in AI agents and systems; Designing and building novel technologies to empower stakeholders' privacy awareness and controls; Designing education initiatives to enhance stakeholders' privacy literacy; Promoting privacy equity for at-risk and underrepresented populations; Bridging empirical privacy research and public policies.

**Keywords:** Human-Computer Interaction; Human-Centered Privacy and Security; Embodied AI Agents; Large-Language Models; Accessibility; At-risk Population; Qualitative and Quantitative Research; Community-based Research.

## Academic Appointments

Assistant Professor, Computer Science, Johns Hopkins University	July 2025–Now
Assistant Professor, Computer Science, Virginia Tech	August 2023–June 2025
Assistant Professor, Information Systems, UMBC	Jan 2021–July 2023
Post-Doctoral Fellow, CyLab, Carnegie Mellon University	Jan 2020–Dec 2020

## Education

Ph.D. in Information Sciences, Syracuse University	2020
M.S. in Information Management, University of Washington	2014
B.S. in Business Administration, Harbin Institute of Technology	2012

## Awards

NSF CAREER Award	2025
Best Paper Award, ACM CSCW	2024
IAPP SOUPS Privacy Award, SOUPS	2021
Doctoral Dissertation Award, Syracuse University	2020
Best Paper Honorable Mention Award, ACM CSCW	2019
Best Paper Award, HICSS	2019
Katzer Research Award, Syracuse University	2016
Graduate School Award for Excellence and Innovation, University of Washington	2014
Mary Hotchkiss Endowed Fellowship, University of Washington	2014

## Grants

*Total: \$2.75M; Personal share: \$1.5M*

NSF CAREER Award on Enhancing Privacy Literacy for Young Children (\$650K), PI	2025
NSF SaTC Small on LLM-Based Privacy Sandbox (\$600K), Co-PI	2024
Google PSS Faculty Award (\$75K), PI	2023
NSF HCC Small on Avatar Accessibility in VR (\$600K), Co-PI	2023
NSF SaTC Small on Privacy Negotiation (\$600K), Lead PI	2023
Meta Research Award on Privacy Predictors in Virtual Reality (\$100,000), Co-PI	2022
Meta Research Award on Privacy Notice in Virtual Reality (\$75,000), PI	2022
UMBC SUFF Grant (\$6,000), PI	2021
UMBC START Grant (\$25,000), PI	2021

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## Full Publications

*\* indicates the students who I closely mentored and worked with.*

- [C62] \*Chen, C., Zhang, Z., Guo, B., Ma, S., Khalilov, I., Gebreegziahher, S., Yao, B., Wang, D., Ye, Y., Xiao, Z., Li, T., **Yao, Y.**, Li, T. The Obvious Invisible Threat: Vulnerabilities of LLM-Powered GUI Agents to Adversarial UI Manipulations in Web Interaction Tasks. *ACM Transactions on AI Security and Privacy* (2026).
- [C61] \*Chen, Z., Wen, J., **Yao, Y.**, Li, T., Li, T. PrivacyMotiv: Vulnerability-Centered Persona Journeys for Empathic Privacy Reviews in UX Design. In *Proceedings of the 2026 ACM Designing Interactive Systems (DIS'26)*.
- [C60] \*Liu, L., \*Li, X., Lin, Y., **Yao, Y.** Designing Privacy Choice in Generative AI Chatbot Ecosystems. In *Proceedings of the 2026 CHI Conference on Human Factors in Computing Systems (CHI'26)*.
- [C59] Tang, J., \*Chen, C., Li, J., Zhang, Z., Guo, B., Khalilov, I., Gebreegziahher, S., Yao, B., Wang, D., Ye, Y., Li, T., Xiao, Z., **Yao, Y.**, Li, T. Dark Patterns Meet GUI Agents: LLM Agent Susceptibility to Manipulative Interfaces and the Role of Human Oversight. In *Proceedings of the 2026 CHI Conference on Human Factors in Computing Systems (CHI'26)*.
- [C58] Guan, Y., **Yao, Y.**, Teng, S., Zhou, X., Wang, Y. User Perceptions of Responsible Gambling Messages as Nudges for Gambling Safety. In *Proceedings of the 2026 CHI Conference on Human Factors in Computing Systems (CHI'26)*.
- [C57] Driscoll, J., Chen, Y., Shi, V., Vucharatavintara, I., **Yao, Y.**, Jin, H., 2026. Understanding Parents' Desires in Moderating Children's Interactions with GenAI Chatbots through LLM-Generated Probes. In *Proceedings of the 2026 CHI Conference on Human Factors in Computing Systems (CHI'26)*.
- [C56] \*Khalilov, I., Chen, C., Xiao, Z., Li, T., Li, T.J.J., **Yao, Y.**, 2026. PriviSense: A Frida-Based Framework for Multi-Sensor Spoofing on Android. In *2026 IEEE/ACM 48th International Conference on Software Engineering (ICSE'26)*.
- [C55] **Yao, Y.**, Liu, L., 2026. It Takes a Village to Teach Privacy. *Communications of the ACM*, 69(2), pp.43-45.
- [C54] Ren, Y., Ramesh, K., **Yao, Y.** and Field, A., 2025, December. How do we measure privacy in text? A survey of text anonymization metrics. In *Proceedings of the 14th International Joint Conference on Natural Language Processing and the 4th Conference of the Asia-Pacific Chapter of the Association for Computational Linguistics* (pp. 1532-1544).
- [C53] Chen, X., Distler, V., Gordon, C., **Yao, Y.**, Teuber, Z. (2025). Empowering Parents to Support Children's Online Security and Privacy: Findings from a Randomized Controlled Trial. In *Proceedings of ACM Conference on Computer and Communications Security (CCS'25)*.
- [C52] \*Chen, C., Li, L., Cao, L., Ye, Y., Li, T., **Yao, Y.**, Li, T. (2025). Why am I seeing this: Democratizing End User Auditing for Online Content Recommendations. In *Proceedings of ACM Symposium on User Interface Software and Technology (UIST '25)*.
- [C51] \*Wen, Z., \*Liu, L., & **Yao, Y.** (2025). Families' Vision of Generative AI Agents for Household Safety Against Digital and Physical Threats. *Proceedings of the ACM on Human-Computer Interaction*, 9(7), 1-24.
- [C50] \*Wen, J., Zhao, Y., Xu, W., **Yao, Y.**, Jin, H. Teaching Data Science Students to Sketch Privacy Designs through Heuristics. In *Proceedings of IEEE Security & Privacy'25*.
- [C49] \*Wen, Z., \*Liu, L., **Yao, Y.** Supporting Family Discussions About Digital Privacy Through Perspective-Taking: An Empirical Investigation. In *Proceedings of IEEE Security & Privacy'25*.

- [C48] \*Wang, X., \*Wang, X., Park, \*S., **Yao, Y.** Users' Mental Models of Generative AI Chatbot Ecosystems. In Proceedings of ACM Conference on Intelligent User Interfaces (IUI'25).
- [C47] \*Chen, C., \*Zhou, D., Ye, Y., Li, T., **Yao, Y.** CLEAR: Towards Contextual LLM-Empowered Privacy Policy Analysis and Risk Generation for Large Language Model Applications. In Proceedings of ACM Conference on Intelligent User Interfaces (IUI'25).
- [C46] \*Zhang, K., Spencer, S., Manikandan, A., Li, A., Li, A., **Yao, Y.**, Zhao, Y. Inclusive Avatar Guidelines for People with Disabilities: Supporting Disability Representation in Social Virtual Reality. In Proceedings of the 2025 CHI Conference on Human Factors in Computing Systems (CHI'25).
- [C45] \*Liu, L, **Yao, Y.**. From Knowledge to Practice: Co-Designing Privacy Controls with Children. In Proceedings of the 2025 CHI Conference on Human Factors in Computing Systems (CHI'25).
- [C44] \*Prottoy, H., **Yao, Y.**, Hamidi, F. "If we had the Option": Infrastructuring for Access to Online Subscription- Based Services in Bangladesh. In Proceedings of ACM Computing Supported Cooperative Work and Social Computing (CSCW'25).
- [C43] \*Lou, S., \*Li, W., \*Zhang, C., Chen, S., Lu, Z., **Yao, Y.** Behind the Same Mask: Understanding the Practice of Spontaneous Collective Anonymity on Chinese Social Platforms. In Proceedings of ACM Computing Supported Cooperative Work and Social Computing (CSCW'25).
- [C42] \*Zhang, X., \*Zhao, M., **Yao, Y.**, Lu, Z. How Social Media Plays A Role in Stay-At-Home-Mom's Transition: A Case Study in China. In Proceedings of ACM Computing Supported Cooperative Work and Social Computing (CSCW'25).
- [C41] Abhinaya S.B., Agrawal, A., **Yao, Y.**, Zou, Y., Das, A. "What are they gonna do with my data?": Privacy Expectations, Concerns, and Behaviors in Virtual Reality. In Proceedings of Privacy Enhancing Technology (PoPETS'25).
- [C40] \*Deldari, E., \*Thakkar, P., **Yao, Y.** Users' Perceptions of Online Child Abuse Detection Mechanisms. In Proceedings of ACM Computing Supported Cooperative Work and Social Computing (CSCW'24).
- [C39] \*Zhou, M., Qu, Z., Wan, J., Wen, B., **Yao, Y.**, Lu, Z. Understanding Chinese Internet Users' Perceptions of, and Online Platforms' Compliance with, the Personal Information Protection Law (PIPL). In Proceedings of ACM Computing Supported Cooperative Work and Social Computing (CSCW'24).
- [C38] \*Lu, Y., Zhang, C., Yang, Y., **Yao, Y.**, Li, T. From Awareness to Action: Exploring End-User Empowerment Interventions for Dark Patterns in UX. In Proceedings of ACM Computing Supported Cooperative Work and Social Computing (CSCW'24).
- Best Paper Award**
- [C37] \*Park, S., \*He, W., \*Deldari, E., Emami-Naeini, P., Huang, D., Vitak, J., **Yao, Y.**, Zimmer, M. "Well-intended but half-hearted: Hosts' consideration of guests' privacy using smart devices on rental properties." In Proceedings of Twentieth Symposium on Usable Privacy and Security (SOUPS'24).
- [C36] \*Liu, L., Gao, L., **Yao, Y.** Exploring Design Opportunities for Family-Based Privacy Education in Informal Learning Spaces. In Proceedings of Privacy Enhancing Technology (PoPETS'24).
- [C35] \*Chen, C., Li, W., Song, W., Ye, Y., **Yao, Y.**, Li, T. An Empathy-Based Sandbox Approach to Bridge the Privacy Gap among Attitudes, Goals, Knowledge, and Behaviors. In Proceedings of the 2024 CHI Conference on Human Factors in Computing Systems (CHI'24).
- [C34] Alghythee, K., Hrcic, A., Singh, K., Kunisetty, S., **Yao, Y.**, Soni, N. Towards Understanding Family Privacy and Security Literacy Conversations at Home: Design Implications for Privacy Literacy Interfaces. In Proceedings of the 2024 CHI Conference on Human Factors in Computing Systems (CHI'24).

- [C33] Le, T., Wang, Z., Huang, D., **Yao, Y.**, Tian, Y. Towards Real-time Voice Interaction Data Collection Monitoring and Ambient Light Privacy Notification for Voice-controlled Services. Symposium on Usable Security and Privacy 2024 (USEC'24) .
- [C32] Feng, Y., Ravichander, A., **Yao, Y.**, Zhang, S., Chen, R., Wilson, S., Sadeh, N. Understanding How to Inform Blind and Low-Vision Users about Data Privacy through Privacy Question Answering Assistants. In Proceedings of USENIX Security 2024 (USENIX Security'24).
- [C31] \*Zhang, K., \*Deldari, E., **Yao, Y.**, Zhao, Y. (2023). A Diary Study in Social Virtual Reality: Impact of Avatars with Disability Signifiers on the Social Experiences of People with Disabilities. In Proceedings of the 25th International ACM SIGACCESS Conference on Computers and Accessibility (ASSETS'23).
- [C30] \*Wang, Z., Huang, D., **Yao, Y.** (2023). Exploring Tenants' Preferences of Privacy Negotiation in Airbnb. In Proceedings of 32nd USENIX Security Symposium (USENIX Security'23).
- [C29] \*Deldari, E., Freed, D., Poveda, J., **Yao, Y.** (2023). An Investigation of Teenager Experiences in Social Virtual Reality from Teenagers', Parents', and Bystanders' Perspectives. In Proceedings of 19th Symposium on Usable Privacy and Security (SOUPS'23).
- [C28] \*Wen, Z., \*Jia, J., Yan, H., **Yao, Y.**, Liu, Z., Dong, C. (2023). The Influence of Explanation Designs on User Understanding Differential Privacy and Making Data-sharing Decision. Information Sciences.
- [C27] \*Le, T., \*Wang, A., **Yao, Y.**, Feng, Y., Heydarian, A., Sadeh, N., Tian, Y. (2023). Exploring Smart Commercial Building Occupants' Perceptions and Notification Preferences of Internet of Things Data Collection in the United States. In Proceedings at the 8th IEEE European Symposium on Security and Privacy (Euro S&P 2023).
- [C26] Cruz, S., Danek, L., Liu, S., Kraemer, C., Wang, Z., Feamster, N., Huang, D., **Yao, Y.**, Heste, J. Toward Identifying Home Privacy Leaks Using Augmented Reality. In Proceedings of the Usable Security and Privacy Symposium 2023 (USEC'23).
- [C25] Zhao, Y., **Yao, Y.**, \*Fu, J., \*Zhou, N. "If sighted people know, I should be able to know:" Privacy Perceptions of Bystanders with Visual Impairments around Camera-based Technology. In Proceedings of 32nd USENIX Security Symposium (USENIX Security'23).
- [C24] \*Zhang, K., \*Deldari, E., Lu, Z., **Yao, Y.**, Zhao, Y. "It's Just Part of Me:" Understanding Avatar Diversity and the Self-presentation of People with Disabilities in Social Virtual Reality. In Proceedings of the 24th International ACM SIGACCESS Conference on Computers and Accessibility (ASSETS'22).
- [C23] \*Zhang, A., Feng, Y., **Yao, Y.**, Cranor, L.F., Sadeh, N. How Usable Are iOS App Privacy Labels? In Proceedings of Privacy Enhancing Technologies (PoPETS'22).
- [C22] \*Thakkar, P., \*He, S., \*Xu, S., Huang, D.Y., **Yao, Y.** "It would probably turn into a social faux-pas": Users' and Bystanders' Preferences of Privacy Awareness Mechanisms in Smart Homes. In Proceedings of the 2022 CHI Conference on Human Factors in Computing Systems (CHI'22).
- [C21] \*Jin, H., Guo, B., Roychoudhury, R., **Yao, Y.**, Kumar, S., Agarwal, Y., Hong, J.I. Exploring the Needs of Users for Supporting Privacy-Protective Behaviors in Smart Homes. In Proceedings of the 2022 CHI Conference on Human Factors in Computing Systems (CHI'22).
- [C20] \*Wang, Y., Zuest, P., **Yao, Y.**, Lu, Z., Wattenhofer, R. Impact and User Perception of Sandwich Attacks in the DeFi Ecosystem. In Proceedings of the 2022 CHI Conference on Human Factors in Computing Systems (CHI'22).
- [C19] \*Story, P., \*Smullen, D., Chen, R., **Yao, Y.**, Acquisti, A., Cranor, L.F., Sadeh, N. and Schaub, F., 2022. Increasing Adoption of Tor Browser Using Informational and Planning Nudges. In Proceedings on Privacy Enhancing Technologies (PoPETS'22).

- [C18] \*Smullen, D., **Yao, Y.**, Feng, Y., Sadeh, N., Edelstein, A., and Weiss, R. Managing Potentially Intrusive Practices In The Browser: A User-Centered Perspective. In Proceedings on Privacy Enhancing Technologies (PoPETS'21).
- [C17] \*Story, P., \*Smullen, D., **Yao, Y.**, Acquisti, A., Cranor, L. F., Sadeh, N., and Schaub, F. Awareness, Adoption, and Misconceptions of Web Privacy Tools. In Proceedings on Privacy Enhancing Technologies (PoPETS'21).
- [C16] \*Kaushik, S., **Yao, Y.**, Dewitte, P., Wang, Y. “How I Know For Sure”: People’s Perspectives on Solely Automated Decision-Making (SADM). In Proceedings at the Symposium on Usable Privacy and Security (SOUPS'21).  
**IAPP SOUPS Privacy Award**
- [C15] Feng, Y., **Yao, Y.**, and Sadeh, N. A Design Space for Privacy Choices: Towards Meaningful Privacy Control in the Internet of Things. In Proceedings of the 2021 CHI Conference on Human Factors in Computing Systems (CHI'21). ACM.
- [C14] Habib, H., Zou, Y., **Yao, Y.**, Acquisti, A., Cranor, L. F., Reidenberg, J., Sadeh, N., and Schaub, F. Toggle, Dollar Signs, and Triangles: How to (In)Effectively Convey Privacy Choices with Icons and Link Texts. In Proceedings of the 2021 CHI Conference on Human Factors in Computing Systems (CHI'21). ACM.
- [C13] **Yao, Y.**, Basdeo, J. R., Mcdonough, O. R., Wang, Y. Privacy Perceptions and Designs of Bystanders in Smart Homes. In Proceedings of the ACM on Human-Computer Interaction (CSCW'19).  
**Best Paper Honorable Mention Award**
- [C12] Huang, Y., Sang, Y., Wu, Q., **Yao, Y.** Higher Education Check-Ins: Exploring the User Experience of Hybrid Location Sensing. In Proceedings of the ACM on Human-Computer Interaction (CSCW'19).
- [C11] Barbosa, N. M., Park, J. S., **Yao, Y.**, Wang, Y. “What if?” Predicting Individual Users’ Smart Home Privacy Preferences and Their Changes. In Proceedings on Privacy Enhancing Technologies (PoPETS'19).
- [C10] **Yao, Y.**, Basdeo, J., Kaushik, S., and Wang, Y. Defending My Castle: A Co-Design Study of Privacy Mechanisms for Smart Homes. In Proceedings of the 2019 CHI Conference on Human Factors in Computing Systems (CHI'19). ACM.
- [C9] **Yao, Y.**, Huang, Y., Wang, Y. Unpacking People’s Understandings of Bluetooth Beacon Systems-A Location-Based IoT Technology. In Proceedings of the 52nd Hawaii International Conference on System Sciences (HICSS'19). (Best Paper Nomination)
- [C8] **Yao, Y.**, Xia, H., Huang, Y. and Wang, Y., 2017, May. Privacy mechanisms for drones: Perceptions of drone controllers and bystanders. In Proceedings of the 2017 CHI Conference on Human Factors in Computing Systems (CHI'17).
- [C7] **Yao, Y.**, Xia, H., Huang, Y. and Wang, Y., 2017, May. Free to fly in public spaces: Drone controllers’ privacy perceptions and practices. In Proceedings of the 2017 CHI Conference on Human Factors in Computing Systems (CHI'17).
- [C6] **Yao, Y.**, Lo Re, D. and Wang, Y., 2017, February. Folk models of online behavioral advertising. In Proceedings of the 2017 ACM Conference on Computer Supported Cooperative Work and Social Computing (CSCW'17).
- [C5] Wang, Y., Xia, H., **Yao, Y.**, Huang, Y. Flying Eyes and Hidden Controllers: A Qualitative Study of People’s Privacy Perceptions of Civilian Drones in the US. Proceedings on Privacy Enhancing Technologies (PoPETS'16).

- [C4] Scholl, H. J., Wang, K., Wang, Y., Woods, G., Xu, D., **Yao, Y.**, Krcmar, H. (2014). Top soccer teams in cyberspace: Online channels for services, communications, research, and sales. *Journal of Marketing Analytics*, 2(2), 98-119.
- [C3] Huang, Y., Huo, S., **Yao, Y.**, Chao, N., Wang, Y., Grygiel, J. and Sawyer, S., 2016, June. Municipal police departments on Facebook: What are they posting and are people engaging?. In *Proceedings of the 17th International digital government research conference on digital government research (DGO'16)*.
- [C2] Guajardo, V., **Yao, Y.**, Bayo Urban, I. and Gomez, R. (2014). CasaCare.org: A sociotechnical platform for women immigrant workers in the home care industry. 11th Community Informatics Conference CIRN, Prato, Italy, October 2014.
- [C1] Jurisch, M., Krcmar, H., Scholl, H. J., Wang, K., Wang, Y., Woods, G., Xu, D., **Yao, Y.** Digital and social media in pro sports: analysis of the 2013 UEFA top four. In *Proceedings of the 47th Hawaii International Conference on System Sciences (HICSS'13)*.

## Book Chapter

- [B1] Lipford, H.R., Tabassum, M., Bahirat, P., **Yao, Y.** and Knijnenburg, B.P., 2022. Privacy and the Internet of Things. In *Modern Socio-Technical Perspectives on Privacy* (pp. 233-264). Springer, Cham.

## Workshop Organized

- [W11] Li, T., Li, T.J.J., **Yao, Y.** and Das, S., 2025, November. HAIPS'25: First ACM CCS Workshop on Human-Centered AI Privacy and Security. In *Proceedings of the 2025 ACM SIGSAC Conference on Computer and Communications Security* (pp. 4900-4901).
- [W10] Akter, T., Calandrino, J., Coventry, L., Das, S., Hoyle, R., Marsh, A., Qin, L., Sannon, Shruti., Munyaka, I., Sharma, T., Kaushik, S., Wang, Y., **Yao, Y.** 7th Workshop on Inclusive Privacy and Security (WIPS) – Privacy and Security for Everyone, Anytime, Anywhere. In the 18th Symposium on Usable Privacy and Security (SOUPS'22).
- [W9] Ahmed, T., Barbosa, N. M., Calandrino, J., Coventry, L., Lerner, A., Marsh, A., Wang, Y., **Yao, Y.** 6th Workshop on Inclusive Privacy and Security (WIPS) – Privacy and Security for Everyone, Anytime, Anywhere. In the 17th Symposium on Usable Privacy and Security (SOUPS'21).
- [W8] Vitak, J., Zimmer, M., Lenhart, A., Park, S., Y. Wong, R. and **Yao, Y.**, 2021, October. Designing for Data Awareness: Addressing Privacy and Security Concerns About “Smart” Technologies. In *Companion Publication of the 2021 Conference on Computer Supported Cooperative Work and Social Computing (CSCW'21)*.
- [W7] Ahmed, T., Barbosa, N. M., Calandrino, J., Coventry, L., Lerner, A., Marsh, A., Wang, Y., **Yao, Y.** 5th Workshop on Inclusive Privacy and Security (WIPS) – Privacy and Security for Everyone, Anytime, Anywhere. In the 16 th Symposium on Usable Privacy and Security (SOUPS'20).
- [W6] **Yao, Y.**, Chouhan, C., Wong, R., Emami-Naeini, P., Merrill, N., Page, X., Wang, Y., Wisniewski, P. Ubiquitous Privacy: Research and Design for Mobile and IoT Platforms. To appear at *Companion of the 2019 ACM Conference on Computer Supported Cooperative Work and Social Computing (CSCW'19)*.
- [W5] Ahmed, T., Barbosa, N. M., Calandrino, J., Coventry, L., Lerner, A., Marsh, A., Wang, Y., **Yao, Y.** 4th Workshop on Inclusive Privacy and Security (WIPS) – Privacy and Security for Everyone, Anytime, Anywhere. In the 15th Symposium on Usable Privacy and Security (SOUPS'19).
- [W4] Badillo-Urquiola, K., **Yao, Y.**, Ayalon, O., Knijnenurg, B., Page, X., Toch, E., Wang, Y., Wisniewski, P. J. (2018, October). Privacy in Context: Critically Engaging with Theory to Guide Privacy Research

and Design. In Companion of the 2018 ACM Conference on Computer Supported Cooperative Work and Social Computing (CSCW'18).

- [W3] **Yao, Y.** Exploring a Speculative Design Approach for Inclusive Privacy and Security. 3rd Workshop on Inclusive Privacy and Security (WIPS). In the 14th Symposium on Usable Privacy and Security (SOUPS'18).
- [W2] Wang, Y., **Yao, Y.**, Whose Privacy? The Case of Drone Controllers and Bystanders. Networked Privacy Workshop of the ACM Conference on Computer-Supported Cooperative Work and Social Computing (CSCW'17).
- [W1] **Yao, Y.**, Personalized Privacy Assistant to Protect People's Privacy in Smart Home Environment. Networked Privacy Workshop of the ACM Conference on Human Factors in Computing Systems (CHI'2018).

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## Poster Publications

- [P9] Chen, Y., Jones, J., **Yao, Y.** (2020, October)WireOn: Supporting Remote Collaboration for Embedded System Development. In Proceedings of the Conference Companion Publication of the 2020 on Computer Supported Cooperative Work and Social Computing (CSCW'20).
- [P8] Huang, Y., Sang, Y., Wu, Q., **Yao, Y.** (2019, April). Studying User Experience of a Hybrid Location Sensing System. In Extended Abstracts of the 2019 CHI Conference on Human Factors in Computing Systems (CHI'19).
- [P7] Huang, Y., Wu, Q., **Yao, Y.** (2018, October). Bluetooth Low Energy (BLE) Beacons Alone Didn't Work!. In Proceedings of the 2018 ACM International Joint Conference and 2018 International Symposium on Pervasive and Ubiquitous Computing and Wearable Computers (UbiComp'18).
- [P6] **Yao, Y.**, Bort, J., Huang, Y. (2017, May). Understanding Danmaku's Potential in Online Video Learning. In Proceedings of the 2017 CHI conference extended abstracts on human factors in computing systems (CHI'17).
- [P5] **Yao, Y.**, Huang, Y., Wang, Y. Unpacking People's Understandings of Bluetooth Beacon. The 14th Symposium on Usable Privacy and Security (SOUPS'18).
- [P4] **Yao, Y.**, Xia, H., Kaushik, S., Wang, Y. Design and Evaluation of an Information-Based Web Tracking Blocking Mechanism. The Federal Trade Commission PrivacyCon, Washington D.C., February 2018.
- [P3] **Yao, Y.**, Xia, H., Kaushik, S., Wang, Y. Design and Evaluation of an Information-Based Web Tracking Blocking Mechanism. Great Lake Security Day. 2017.
- [P2] Huang, Y., **Yao, Y.**, Bort, J., Wu, Q., Danmaku: Understanding its Usage in China and its Broader Potential. CSCW in China and Beyond Workshop of the ACM Conference on Computer-Supported Cooperative Work and Social Computing (CSCW'17).
- [P1] Wang, Y., Xia, H., **Yao, Y.**, Huang, Y. Flying Eyes and Hidden Controllers: A Qualitative Study of People's Privacy Perceptions of Civilian Drones in the US. The 12th Symposium on Usable Privacy and Security (SOUPS'16).

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## Magazine Articles

- [M1] Walker, A.M., **Yao, Y.**, Geeng, C., Hoyle, R. and Wisniewski, P., 2019. Moving beyond 'one size fits all' research considerations for working with vulnerable populations. *Interactions*, 26(6), pp.34-39.

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## Invited Talks and Panels

- [T20] "A Symbiotic Ecosystem for AI and Human-Centered Privacy", Max Planck Institute for Security and Privacy, April, 2026
- [T19] "A Symbiotic Ecosystem for AI and Human-Centered Privacy", CISPA, April, 2026

- [T18] “Human-Centered Privacy in Generative AI Ecosystem”, Google, March 2026
- [T17] “A Symbiotic Ecosystem for AI and Human-Centered Privacy”, Hong Kong Poly Technical University, October, 2025
- [T16] “A Symbiotic Ecosystem for AI and Human-Centered Privacy”, City University of Hong Kong, October, 2025
- [T15] “A Symbiotic Ecosystem for AI and Human-Centered Privacy”, University of Wisconsin-Madison, March, 2025
- [T14] “A Symbiotic Ecosystem for AI and Human-Centered Privacy”, Johns Hopkins University, November, 2024
- [T13] “AI-Empowered Privacy Assistant”, Google, November 2024
- [T12] “Promoting Privacy Equity for People with Disabilities”, George Washington University, November, 2024
- [T11] “Mental Models of Generative AI Ecosystem”, Google, April 2024
- [T10] “Empowering Privacy in a Hyper-Connected World”, Privacy Seminar, University of Notre Dame, March, 2024
- [T9] “Empowering Privacy in a Hyper-Connected World”, Privacy Seminar, Carnegie Mellon University, February, 2024
- [T8] “Empowering Privacy in a Hyper-Connected World”, Research Seminar, University of California, San Diego, February, 2024
- [T7] “Empowering Privacy in a Hyper-Connected World”, Research Seminar, University of California, Los Angeles, February, 2024
- [T6] “Panel: Privacy and Cybersecurity for Vulnerable Populations”, ABA Antitrust Section Spring Meeting, Washington D.C.
- [T5] “Supporting a Healthy and Safety Environment for Teenagers in Social VR”, Johns Hopkins University
- [T4] “Privacy for Whom? A Multi-Stakeholder Exploration of Privacy Designs”, University of Maryland, HCIL Brown Bag Series
- [T3] “Human-Centered Perspectives on Privacy and Security Harms in the Smart Home”, UC Berkeley
- [T2] “Privacy for Whom? A Multi-Stakeholder Exploration of Privacy Designs”, Tsinghua University
- [T1] “‘What if?’ Predicting Individual Users’ Smart Home Privacy Preferences and Their Changes.” Federal Trade Commission (FTC) PrivacyCon, Washington D.C., 2019.

## Teaching

### Instructor

- Introduction to Human-Centered AI (Spring 2026)
- Research Seminar: Privacy Law, Technology, and Design (Fall 2021 2022, 2023, 2024, 2025)
- Research Methods in Computer Science (Spring 2024, 2025)
- Fundamentals of Human-Computer Interaction (Spring 2021, 2023)
- HCC 613: User Interface Prototyping (Spring 2022)

## Students Advising

### Current Ph.D. Students

- Lanjing Liu (JHU, Aug. 2024 - now)

- Ibrahim Khalilov (JHU, Aug. 2024 - now)
- Xinran Li (JHU, Aug. 2024 - now)
- Qi Sun (JHU, Jan. 2026 - now)

### **Past Students and Postdocs**

- Alex Zikai Wen (VT, now faculty at U of Washington Tacoma)
- Minzhu Zhao (VT, now PhD student at U. of Minnesota)
- Weijun Li (VT, now PhD student at UC Irvine)
- Wendy Bickersteth (UMBC, now PhD student at CMU)
- Zixin Wang (VT, now PhD student at U. of Michigan)
- Elmira Deldari (UMBC)
- Elizabeth Louie (CMU, now Software Engineer at Meta)
- Kexin Zhang (U. of Wisconsin - Madison, now PhD student)
- Peter Story (CMU, now Assistant Professor at Clark University)
- Daniel Smullen (CMU, now Research Scientist at Amazon)
- Shijing He (Cisco, now PhD student at UCL)
- Shiyu Xu (U. of Michigan)
- Akashth Jain (CMU, now at Apple)
- Prashanth Mogali (CMU, now at Facebook)
- Smirity Kaushik (Syracuse, now PhD student at UIUC)

## **Services**

### **Organizing Committee**

- Poster Co-Chair, SOUPS 2025, 2026
- Workshop Co-Chair, SOUPS 2022, 2023
- Publicity Co-Chair, SOUPS 2020, 2021, 2024
- Lead organizer, Inclusive Privacy and Security Workshop (WIPS@SOUPS), 2019, 2020, 2021, 2022, 2023, 2024
- Organizer, Networked Privacy Workshop, CSCW 2018, 2019, 2021

### **Program Committee/Associate Editor**

- UIST 2026
- UX & Usability Subcommittee Chair, CHI 2025, 2026
- CHI 2021, 2022, 2023, 2024
- CSCW 2020, 2021, 2022, 2023, 2024
- CCS 2024, 2025
- IEEE Security & Privacy 2024, 2025
- USENIX Security 2024, 2025, 2026
- PoPETS 2022, 2024, 2025, 2026
- SOUPS 2022, 2023, 2024, 2025

### **Editor**

- IEEE Pervasive Computing Special Issue on Privacy Surveillance, 2021-2022

### **Reviewers**

- ACM CHI 2016, 2017, 2018, 2019, 2020
- ACM CHI Late-Breaking Work 2017, 2018, 2019
- ACM CSCW 2016, 2017, 2018, 2019
- iConference 2016, 2017, 2018, 2019
- PoPETS 2016
- SOUPS 2016, 2017, 2018, 2021
- IEEE Security Privacy 2018, 2021
- ICIS 2018
- USEC 2019
- IMWUT 2019, 2022

- ACM GROUP 2020
- JASIST

**Dissertation Committee Member**

- Sally Cao (JHU)
- Chaoran Chen (Notre Dame)
- Sunyup Park (UMD)
- Elmira Deldari (UMBC)
- Hirak Ray (UMBC)
- Wei Bai (UMBC)
- Peter Story (CMU)
- Daniel Smullen (CMU)