

Yaxing Yao

PhD candidate in Information Science, Syracuse University
Expected graduation: 2020 (Date TBD)

yyao08@syr.edu
206-747-8867
www.yaxingyao.com

RESEARCH INTERESTS

Usable privacy in the Internet of Things, smart homes, mobile devices, and other emerging technologies; online privacy; human-computer interaction

EDUCATION BACKGROUND

Syracuse University, Syracuse, NY

08/2015-Present

- Ph.D. in Information Science and Technology (Advisor: Dr. Yang Wang)
- Thesis title: Designing a Privacy Awareness System for Multiple Stakeholders in Smart Homes
- Committee members: Yang Wang, Jason Dedrick, Joon S. Park, Bryan Semaan

University of Washington, Seattle, WA

09/2012-07/2014

- Master of Science in Information Management; GPA: 3.75/4.0

Harbin Institute of Technology, China

09/2008-07/2012

- Bachelor of Business Administration; GPA: 3.4/4.0

PUBLICATIONS

Refereed Journal Articles

[J3] 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)*. 2019.4. (Acceptance Rate: 19%)

[J2] 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)*. 2016 (3):1–19. (Acceptance Rate: 19%)

[J1] 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.

Refereed Conference Proceedings

[C11] **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.

[C10] 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*. ACM.

[C9] **Yao, Y.**, Huang, Y., & Wang, Y. (2019, January). Unpacking People's Understandings of Bluetooth Beacon Systems-A Location-Based IoT Technology. In *Proceedings of the 52nd Hawaii International Conference on System Sciences*. ** **BEST PAPER AWARD**

[C8] 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* (pp. 62-65). ACM.

- [C7] **Yao, Y.**, Xia, H., Huang, Y., & 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* (pp. 6777-6788). ACM.
- [C6] **Yao, Y.**, Xia, H., Huang, Y., & 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* (pp. 6789-6793). ACM.
- [C5] **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* (pp. 3034-3040). ACM.
- [C4] **Yao, Y.**, Lo Re, D., & 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* (pp. 1957-1969). ACM.
- [C3] Huang, Y., Huo, S., **Yao, Y.**, Chao, N., Wang, Y., Grygiel, J., & 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* (pp. 366-374). ACM.
- [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.** (2014, January). 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* (pp. 3073-3082). IEEE.

Workshop Organized/Papers

- [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 2019)*, Santa Clara, CA, August 2019.
- [W4] Badillo-Urquiola, K., **Yao, Y.**, Ayalon, O., Knijnenburg, 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* (pp. 425-431). ACM. Jersey City, NJ, November 2019.
- [W3] **Yao, Y.** Exploring a Speculative Design Approach for Inclusive Privacy and Security. *3rd Workshop on Inclusive Privacy and Security (WIPS)*, Baltimore, MD, August 2018.
- [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 2017)*, Portland, OR, February 2017.
- [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)*, Montreal, QC, Canada, April 2018.

Posters

[P5] **Yao, Y.**, Huang, Y., Wang, Y. Unpacking People's Understandings of Bluetooth Beacon. *The 14th Symposium on Usable Privacy and Security*, Baltimore, MD, August 2018.

[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*, Rochester, NY, September 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 2017)*, Portland, OR, February 2017.

[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 (SOUPS2016)*

TECHNICAL SKILLS

Front and back-end web development; Python; JavaScript; SQL; iOS; PHP; R; scikit-learn; Weka

RESEARCH EXPERIENCES

Syracuse University, Research Assistant, Syracuse, NY 08/2015-Present

- Conducted qualitative and quantitative research to understand people's privacy concerns and needs of emerging technologies, e.g., drones, BLE beacons, smart homes; designed and implemented privacy-enhancing mechanisms for these technologies.
- Mentored undergraduate and graduate students through several research projects, resulting in academic publications

University of Washington, Part-time Research Assistant, Seattle, WA 08/2014-05/2015

- Member of Data Lab (advisor: Dr. Joshua Blumenstock). Using Python, d3.js, MapReduce, and R, I created static data visualizations and interactive maps to show the relationship between mobile phone usage and people's income level in Rwanda using over 10 million phone call records.
- Member of Social Media Lab (advisor: Dr. Robert M. Mason). Using Python, Jieba Chinese text segmentation tool, and NLTK, I conducted a sentiment analysis on over 12 million Sina Weibo posts to understand how disasters affect people's emotion on social media in China.

INDUSTRY EXPERIENCE

Taggle. Inc, Software Engineer, Seattle, WA 06/2014-05/2015

- Implemented front-end user interface of a social network app using Auto Layout
- Built a web application individually to mirror the functionalities of our app using JavaScript, HTML, and CSS for front-end and PHP/Symfony and MySQL for back-end

TEACHING EXPERIENCES

Teaching Assistant, IST 800 Privacy Policy, Law, and Technology, Spring 2018
IST 649 Human Interaction w/Computers, Fall 2016

IST 719 Information Visualization, Spring 2016

IST 687 Applied Data Science, Fall 2015

HONORS AND AWARDS

USENIX Student Travel Grant (2019, \$2,360)

Syracuse iSchool Research Fund (2019, \$6,500)

The Graduate Student Office Travel Grant (2018, \$300)

The University of Houston Privacy and Security Workshop (2018, \$1,400)

Syracuse iSchool Research Fellowship (2018, \$12,000)

National Science Foundation I-Corp Project "Beacon-Enabled Smart Location-Based Service",
(2018, \$50,000, Entrepreneurial Lead)

Syracuse iSchool Research Fund (2017, \$6,000)

National Science Foundation Travel Grant (2017, \$175)

PoPETS Student Travel Grant (2016, \$900)

Katzer Research Fund (2016, \$6,000)

Completion of 1st Interdisciplinary Summer School on Privacy (2016, Nijmegen, the Netherlands)

Graduate School Fund for Excellence and Innovation (2014, \$400)

Mary Hotchkiss Endowed Fellowship (2014, \$1,000)

ACADEMIC SERVICE

iSchool Service at Syracuse University

- Doctoral Program Committee Member (2015-2016)
- Faculty Committee Member (2016-2017)
- Faculty Search Committee Member (2018-2019)
- Syracuse University School of Information Studies Dean Search Committee (2018-2020)

Program Committee Member

- GROUP 2020
- CHI Late-Breaking Work 2017, 2019
- DIS Provocations and Works-in-Progress 2019
- AAAI Fall Symposium on Privacy and Language Technologies (PLT) 2016, 2018
- Workshop on Usable Security and Privacy (USEC) 2019
- AAAI Spring Symposium on Privacy-Enhancing AI and Language Technology (PAL) 2019

Reviewer

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

Student Volunteer

- CHI 2017, CHI 2018

Student Mentoring

- Smirity Kaushik, *Master student in Information Management, Syracuse University*
- Charlotte Emily Price, *Master student in Library Science, Syracuse University*
- Justin Reed Basdeo, *Undergraduate student in Industrial Design, Syracuse University*
- Oriana Rosata Mcdonough, *Undergraduate student in Informatics, Syracuse University*
- Casey Sawyer, *Undergraduate summer intern, University of the Pacific*
- Dylan Wiki Rogers, *Undergraduate summer intern, Bucknell University*