

Yixin Zou

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Research interests

My research interests lie at the intersection of human-computer interaction, privacy, and security. I work on developing approaches that help consumers better adopt protective behaviors in the face of privacy and security threats, as well as understanding the unique barriers faced by marginalized/vulnerable populations in protecting themselves.

Employments

- Since 2023 **Tenure-Track Faculty Member**
Max Planck Institute for Security and Privacy | Bochum, Germany
- 2022 **Postdoctoral Fellow**
University of Michigan, School of Information | Ann Arbor, MI, United States
- 2017 - 2022 **Graduate Student Research Assistant**
University of Michigan, School of Information | Ann Arbor, MI, United States
- 2020 **UX Research Intern, Privacy & Data Use**
Meta (formerly known as Facebook) | Remote
- 2019 **Research Intern, NortonLifeLock Research Group**
NortonLifeLock (formerly known as Symantec) | Culver City, CA
- 2019 **UX Research Intern, Firefox Monitor**
Mozilla | Remote

Education

- 2022 **Ph.D. in Information**, University of Michigan
Dissertation committee: Florian Schaub (chair), Tawanna Dillahunt, Denise Anthony, Alessandro Acquisti (Carnegie Mellon University), Adam Aviv (The George Washington University)
Affiliated member at the [Center for Ethics, Society, and Computing](#) and the [Michigan Interactive and Social Computing Group](#)
- 2017 **B.Sc. in Advertising**, University of Illinois at Urbana-Champaign
Graduated with the Highest Honor (top 5% in the College of Media)

Honors & Awards

- 2022 **John Karat Usable Privacy and Security Student Research Award**
Awarded annually to the top graduate student in usable security and privacy.
- 2021 **Privacy Papers for Policymakers: Student Paper Honorable Mention**
Awarded by the Future of Privacy Forum. For *"It's a scavenger hunt": Usability of Websites' Opt-Out and Data Deletion Choices*.
- 2020 **CHI Best Paper Honorable Mention**
For *Examining the Adoption and Abandonment of Security, Privacy, and Identity Theft Protection Practices*.

- 2019 **CHI Best Paper Honorable Mention**
For Putting Your Warning Where Your Link Is: Improving and Evaluating Email Phishing Warnings.
- 2018 **SOUPS Distinguished Paper Award**
For “I’ve Got Nothing to Lose”: Consumers’ Risk Perceptions and Protective Actions after the Equifax Data Breach.

Funding

Grants

- 2023 **Predictors of Privacy Preferences in Social Virtual Reality**
 Meta Research Award, Co-PI with Anupam Das (PI, North Carolina State University) and Yaxing Yao (Co-PI, University of Maryland-Baltimore County). \$100,000.

Fellowships

- 2021 **Finalist, Facebook Fellowship**
 Among the top 3.5% of about 2,100 applicants worldwide.
- 2020 **Finalist, Facebook Fellowship**
 Among the top 4% of about 1,800 applicants worldwide.
- 2019 **NortonLifeLock Fellowship**
 One of the three recipients selected worldwide. \$20,000.

Publications


Conferences are the top-tier academic publishing venues in computer science and information science (CS/IS). Thus, the majority of my research is published in CS/IS conference proceedings.

** after author names indicates co-first authorship.*

Peer-reviewed Conference Proceedings (13)

- [C13] **Aunties, Strangers, and the FBI: Online Privacy Concerns and Experiences of Muslim-American Women**
 Tanisha Afnan, Yixin Zou, Maryam Mustafa, Mustafa Naseem, and Florian Schaub.
 Symposium on Usable Privacy and Security (SOUPS), 2022.
<https://www.usenix.org/system/files/soups2022-afnan.pdf>
- [C12] **Trauma-Informed Computing: Towards Safer Technology Experiences for All**
 Janet Chen*, Allison McDonald*, Yixin Zou*, Emily Tseng, Kevin Roundy, Acar Tamersoy, Florian Schaub, Thomas Ristenpart, and Nicola Dell.
 ACM Conference on Human Factors in Computing Systems (CHI), 2022.
<https://doi.org/10.1145/3491102.3517475>
- [C11] **The Role of Computer Security Customer Support in Helping Survivors of Intimate Partner Violence**
Yixin Zou, Allison McDonald, Julia Narakornpichit, Nicola Dell, Thomas Ristenpart, Kevin Roundy, Florian Schaub, and Acar Tamersoy.
 USENIX Security Symposium, 2021.
<https://www.usenix.org/system/files/sec21-zou.pdf>

- [C10] **“Now I’m a bit angry:” Individuals’ Awareness, Perception, and Responses to Data Breaches that Affected Them**
 Peter Mayer*, Yixin Zou*, Florian Schaub, and Adam J. Aviv.
 USENIX Security Symposium, 2021.
<https://www.usenix.org/system/files/sec21-mayer.pdf>
Also presented at FTC PrivacyCon 2021.
- [C9] **Toggles, Dollar Signs, And Triangles: How to (In)Effectively Convey Privacy Choices with Icons and Link Texts**
 Hana Habib*, Yixin Zou*, Yaxing Yao, Alessandro Acquisti, Lorrie Faith Cranor, Joel Reidenberg, Norman Sadeh, and Florian Schaub.
 ACM Conference on Human Factors in Computing Systems (CHI), 2021.
<https://doi.org/10.1145/3411764.3445387>
Icon recommendation adopted into the California Consumer Privacy Act (CCPA) regulations.
- [C8] **Examining the Adoption and Abandonment of Security, Privacy, and Identity Theft Protection Practices** 🏆
Yixin Zou, Kevin Roundy, Acar Tamersoy, Saurabh Shintre, Johann Roturier, and Florian Schaub.
 ACM Conference on Human Factors in Computing Systems (CHI), 2020.
<https://doi.org/10.1145/3313831.3376570>
CHI Best Paper Honorable Mention Award. Also presented at FTC PrivacyCon 2020.
- [C7] **“It’s a scavenger hunt”: Usability of Websites’ Opt-Out and Data Deletion Choices** 🏆
 Hana Habib, Sarah Pearman, Jiamin Wang, Yixin Zou, Alessandro Acquisti, Lorrie Faith Cranor, Norman Sadeh, and Florian Schaub.
 ACM Conference on Human Factors in Computing Systems (CHI), 2020.
<https://doi.org/10.1145/3313831.3376511>
FPF 2020 Privacy Papers for Policy Makers Student Honorable Mention. Also presented at FTC PrivacyCon 2020.
- [C6] **“We Can’t Live Without Them!” App Developers’ Adoption of Ad Networks and Their Considerations of Consumer Risks**
 Abraham H. Mhaidli, Yixin Zou, and Florian Schaub.
 Symposium on Usable Privacy and Security (SOUPS), 2019.
<https://www.usenix.org/conference/soups2019/presentation/mhaidli>
- [C5] **An Empirical Analysis of Data Deletion and Opt-Out Choices on 150 Websites**
 Hana Habib, Yixin Zou, Aditi Jannu, Neha Sridhar, Chelse Swoopes, Alessandro Acquisti, Lorrie Faith Cranor, Norman Sadeh, and Florian Schaub.
 Symposium on Usable Privacy and Security (SOUPS), 2019.
<https://www.usenix.org/conference/soups2019/presentation/habib>
Also presented at FTC PrivacyCon 2020.
- [C4] **You ‘Might’ Be Affected: An Empirical Analysis of Usability Issues in Data Breach Notifications**
Yixin Zou, Shawn Danino, Kaiwen Sun, and Florian Schaub.
 ACM Conference on Human Factors in Computing Systems (CHI), 2019.
<https://doi.org/10.1145/3290605.3300424>
Also presented at FTC PrivacyCon 2019.

- [C3] **Put Your Warning Where Your Link Is: Improving and Evaluating Email Phishing Warnings** 
Justin Petelka, Yixin Zou, and Florian Schaub.
ACM Conference on Human Factors in Computing Systems (CHI), 2019.
<https://doi.org/10.1145/3290605.3300748>
CHI Best Paper Honorable Mention Award.
- [C2] **“I’ve Got Nothing to Lose”: Consumers’ Risk Perceptions and Protective Actions after the Equifax Data Breach** 
Yixin Zou, Abraham H. Mhaidli, Austin McCall, and Florian Schaub.
Symposium on Usable Privacy and Security (SOUPS), 2018.
<https://www.usenix.org/conference/soups2018/presentation/zou>
SOUPS Distinguished Paper Award.
- [C1] **Users’ Attitudes towards the “Going Dark” Debate**
Aseel Addawood, Yixin Zou, and Masooda Bashir.
International Conference on Applied Human Factors and Ergonomics, 2017.
https://doi.org/10.1007/978-3-319-60585-2_28

Journal & Magazine Articles (4)

- [J4] **Awareness, Intention, (In)Action: Individuals’ Reactions to Data Breaches**
Peter Mayer, Yixin Zou, Byron Lowens, Hunter Dyer, Khue Le, Florian Schaub, and Adam J. Aviv.
To appear in ACM Transactions on Computer-Human Interaction (TOCHI).
Extended version of [C10].
- [J3] **Child Safety in the Smart Home: Parents’ Perceptions, Needs, and Mitigation Strategies**
Kaiwen Sun, Yixin Zou, Jenny Radesky, Christopher Brooks, and Florian Schaub.
Proceedings of the ACM on Human-Computer Interaction, 5(CSCW2), 471:1–471:41. 2021.
<https://doi.org/10.1145/3479858>
Also presented at FTC PrivacyCon 2022.
- [J2] **Listen Only When Spoken To: Interpersonal Communication Cues as Smart Speaker Privacy Controls**
Abraham H. Mhaidli, Manikandan K. Venkatesh, Yixin Zou, and Florian Schaub.
Proceedings on Privacy Enhancing Technologies (PoPETs), 2020(2), 251-270. 2020.
<https://doi.org/10.2478/popets-2020-0026>
- [J1] **Beyond Mandatory: Making Data Breach Notifications Useful for Consumers**
Yixin Zou and Florian Schaub.
IEEE Security & Privacy, 17(2), 67-72. 2019.
<https://doi.org/10.1109/MSEC.2019.2897834>
Also presented at FTC PrivacyCon 2019.

Workshop Proceedings and Posters (8)

- [W8] **The Portrayal of Children in Smart Home Marketing**
Kaiwen Sun, Jingjie Li, Yixin Zou, Florian Schaub, and Chris Brooks.
SOUPS Workshop on Kids’ Online Privacy and Safety, 2022.

- [W7] **“Now I’m a bit angry:” Individuals’ Awareness, Perception, and Responses to Data Breaches that Affected Them**
Peter Mayer*, Yixin Zou*, Florian Schaub, and Adam J. Aviv.
Symposium on Usable Privacy and Security (SOUPS) Poster Session, 2022.
- [W6] **An Empirical Analysis of Online Consent and Opt-Out Experience**
Hana Habib, Yixin Zou, Chelse Swoopes, Aditi Jannu, Lorrie Faith Cranor, and Florian Schaub.
Privacy Law Scholars Conference (PLSC), 2018.
- [W5] **An Empirical Analysis of Website Data Deletion and Opt-Out Choices**
Hana Habib, Yixin Zou, Aditi Jannu, Chelse Swoopes, Alessandro Acquisti, Lorrie Faith Cranor, Norman Sadeh, and Florian Schaub.
CHI Workshop on General Data Protection Regulation, 2018.
- [W4] **Concern But No Action: Consumers’ Reactions to the Equifax Data Breach**
Yixin Zou and Florian Schaub.
ACM Conference on Human Factors in Computing Systems (CHI) Late-Breaking Work, 2018.
- [W3] **Concern But No Action: Consumers’ Reactions to the Equifax Data Breach**
Yixin Zou and Florian Schaub
Midwest Security Workshop, 2018.
- [W2] **Really Being There?: Telepresence in Virtual Reality Branded Content.**
Jie Shen, M. Stenger, J. Lechowicz, Chen Chen, Rachel Yang, Aparna Sivasankaran, Yanyun Wang, Ji Zhang, Yixin Zou, H. Katz, and Michelle R. Nelson.
Annual Conference of the Association for Education in Journalism and Mass Communication (AEJMC), 2017.
- [W1] **The Impacts of Privacy Hypocrisy, Victim Characterization, Gender, and Context on Bystanders’ Guilt Attribution in a Cyberbullying Suicide**
Mike Zhengyu Yao, Yixin Zou, Daniel Linz, and P. Jaoude.
Annual Conference of International Communication Association (ICA), 2017.

Technical Reports (3)

- [T3] **CCPA Opt-Out Icon Testing – Phase 2**
Lorrie Faith Cranor, Hana Habib, Yaxing Yao, Yixin Zou, Alessandro Acquisti, Joel R. Reidenberg, Norman Sadeh, Florian Schaub
Report submitted to the Office of the California Attorney General. 2020.
<https://www.oag.ca.gov/sites/all/files/agweb/pdfs/privacy/dns-icon-study-report-052822020.pdf>
- [T2] **User Testing of the Proposed CCPA Do-Not-Sell Icon**
Lorrie Faith Cranor, Hana Habib, Yixin Zou, Alessandro Acquisti, Joel R. Reidenberg, Norman Sadeh, Florian Schaub
Report submitted to the Office of the California Attorney General. 2020.
<http://cups.cs.cmu.edu/pubs/CCPA2020Feb24.pdf>

[T1] **Design and Evaluation of a Usable Icon and Tagline to Signal an Opt-Out of the Sale of Personal Information as Required by CCPA**

Lorrie Faith Cranor, Hana Habib, Yixin Zou, Alessandro Acquisti, Joel R. Reidenberg, Norman Sadeh, Florian Schaub

Report submitted to the Office of the California Attorney General. 2020.

<https://oag.ca.gov/sites/all/files/agweb/pdfs/privacy/ccpa-cranor.pdf>

Invited Talks and Panels

- 2022 “Consumer Reactions to Data Breaches, Deficiencies of Breach Notifications, and Opportunities for Intervention”
Invited speaker. Interdisciplinary Symposium: Human and Societal Aspects in Computing, **Max Planck Institute for Security and Privacy** (Oct 26)
- 2022 “Improving People’s Security and Privacy Behaviors”
Invited speaker. Khoury College of Computer Sciences, **Northeastern University** (Apr 8)
- 2022 “Improving People’s Security and Privacy Behaviors”
Invited speaker. Department of Computer Science, **North Carolina State University** (Mar 31)
- 2022 “Improving People’s Security and Privacy Behaviors”
Invited speaker. Department of Computer Science, **Virginia Tech** (Mar 29)
- 2022 “Improving People’s Security and Privacy Behaviors”
Invited speaker. Department of Computer Science, **New York University-Shanghai** (Mar 25)
- 2022 “Improving People’s Security and Privacy Behaviors”
Invited speaker. School of Computing & Augmented Intelligence, **Arizona State University** (Mar 21)
- 2022 “Improving People’s Security and Privacy Behaviors”
Invited speaker. College of Information Sciences & Technology, **Penn State University** (Mar 17)
- 2022 “Improving People’s Security and Privacy Behaviors”
Invited speaker. School of Interactive Computing, **Georgia Tech** (Mar 15)
- 2022 “Improving People’s Security and Privacy Behaviors”
Invited speaker. **CISPA – The Helmholtz Center for Information Security** (Mar 9)
- 2022 “Improving People’s Security and Privacy Behaviors”
Invited speaker. School of Information Sciences, **University of Tennessee** (Mar 7)
- 2022 “Improving People’s Security and Privacy Behaviors”
Invited speaker. **Max Planck Institute for Security and Privacy** (Mar 1)
- 2022 “Improving People’s Security and Privacy Behaviors”
Invited speaker. Department of Computer Science, **University College London** (Feb 24)
- 2022 “Improving People’s Security and Privacy Behaviors”
Invited speaker. College of Computing & Informatics, **Drexel University** (Feb 22)
- 2022 “Improving People’s Security and Privacy Behaviors”
Invited speaker. School of Information, **University of Texas at Austin** (Feb 17)
- 2022 “Improving People’s Security and Privacy Behaviors”
Invited speaker. Department of Computer Science, **Duke University** (Feb 14)

- 2022 “Improving People’s Security and Privacy Behaviors”
Invited speaker. Department of Information Systems & Analytics, **National University of Singapore** (Feb 8)
- 2021 “Consumer Reactions to Data Breaches and Opportunities for Interventions”
Invited speaker. **Capital-Area Colloquium on Trustworthy and Usable Security/Privacy**, University of Maryland-College Park (Dec 14)
- 2021 “Improving People’s Adoption of Protective Behaviors Against Security & Privacy Risks”
Invited speaker. Usable Security and Privacy Lab, **the George Washington University** (Dec 13)
- 2021 “Consumer Reactions to Data Breaches, Deficiencies of Breach Notifications, and Opportunities for Public Policy”
Invited speaker (w/ Florian Schaub). Seminar, **the US Federal Trade Commission** (Nov 3)
- 2021 “‘Now I’m a bit angry:’ Individuals’ Awareness, Perception, and Responses to Data Breaches that Affected Them”
Invited speaker (w/ Peter Mayer). SECUSO Research Group, **Karlsruhe Institute of Technology** (May 12)
- 2021 “Spyware and Digital Intimate Partner Abuse”
Invited speaker (w/ Allison McDonald). Sexual Assault Prevention and Awareness Center, **University of Michigan** (Mar 24)
- 2020 “Examining the Adoption and Abandonment of Security, Privacy, and Identity Theft Protection Practices”
Invited speaker. PrivacyCon, **the US Federal Trade Commission** (Jul 21)
- 2019 “Lengthy, Vague, and Inactionable: Issues with Data Breach Notifications and Implications for Public Policy”
Invited speaker. PrivacyCon, **the US Federal Trade Commission** (Jun 27)
- 2018 “Designing Effective and Actionable Data Breach Notices: Implications for Firefox Monitor”
Invited speaker (w/ Florian Schaub). Firefox Monitor team, **Mozilla** (Nov 6)

Teaching Experience

Graduate Student Instructor

- Fall 2019 **SI 501: Contextual Inquiry** | University of Michigan
Led two weekly discussion sections, held office hours, and graded assignments. Oversaw ten consulting projects with local clients led by master’s students.
4.8 (of 5.0) median rating (37 of 48 students).
- Fall 2018 **SI 110: Introduction to Information** | University of Michigan
Led two weekly discussion sections, held office hours, and graded assignments. Also gave a guest lecture on net neutrality and privacy.
4.5 (of 5.0) median rating (20 of 48 students).

Guest Lectures

- 2021 **Law 741-004/SI 605-004: Identity Theft Causes & Countermeasures** | University of Michigan
“Why most consumers do not take countermeasures against identity theft” (1 lecture)
- 2019 **SI 110: Introduction to Information** | University of Michigan
“Information and regulation: Net neutrality and privacy” (2 lectures)

Research Mentoring

- 2022 **J.R. Robert Real**. Master's student in Information and Laws, University of Michigan.
- 2022 **Sean Scarnecchia**. Undergraduate student in Computer Science, University of Michigan.
- 2022 **Annie Chen**. Undergraduate student in Computer Science, University of Michigan.
- 2021-2022 **Tanisha Afnan**. Ph.D. student in Information, University of Michigan.
- 2021-2022 **Janet Chen**. Ph.D. student in Information Science, Cornell University.
- 2021-2022 **Shay (Khue) Le**. Undergraduate student in Computer Science, University of Michigan.
- 2018-2022 **Kaiwen Sun**. Ph.D. student in Information, University of Michigan.
- 2021 **Cami Goray**. Ph.D. student in Information, University of Michigan.
- 2021 **Carlo Sugatan**. Master's student in Information, University of Michigan.
- 2021 **Jeremy Hazan**. Master's student in Information Science, Cornell Tech.
- 2021 **Rui Maki**. Master's student in Information Science, Cornell Tech.
- 2020 **Julia Narakornpichit**. Master's student in Information Science, Cornell Tech.
- 2019-2020 **Michael Ni**. Undergraduate student in Computer Science, University of Michigan.
- 2019-2020 **Jamie Lai**. Undergraduate student in Information, University of Michigan.
- 2018 **Shawn Danino**. Undergraduate student in Information, University of Michigan.
- 2018 **Austin McCall**. Undergraduate student in Information, University of Michigan.

Community-based Teaching and Outreach

- 2022 **Phone Classes with Older Adults**
Collaborated with [Clear Computing LLC](#) to deliver classes about smartphone use at the Glacier Hills Senior Living Community. Example topics include navigating accessibility settings, downloading apps and health portals, and using voice commands.
- 2021 **Online Self-Defense Workshops with Older Adults**
Organized and led a three-week workshop series in partnership with Ann Arbor Senior Center, Chelsea Senior Center, and Saline Senior Center to teach older adults common risks in technology use as well as tools and resources they can use to protect themselves.

External Service

Conference Organizing

- 2023 Program Committee Co-Chair: Workshop on Usable Security and Privacy (USEC)
- 2022, 2023 Publicity Co-Chair: Symposium on Usable Privacy and Security (SOUPS)
- 2021 Posters Junior Co-Chair: Symposium on Usable Privacy and Security (SOUPS)

Program Committee Member / Associate Chair / Editorial Board Member

- 2023 USENIX Security Symposium
- 2023 Proceedings on Privacy Enhancing Technologies (PoPETs)
- 2022 International Symposium on Research in Attacks, Intrusions and Defenses (RAID)
- 2021 European Symposium on Usable Security (EuroUSEC)
- 2021 ACM CSCW Posters
- 2020, 2021 ACM CHI Late Breaking Work
- 2020 IEEE PerCom Workshop on Context Systems Design, Evaluation and Optimization

External Reviewer

ACM Conference on Human Factors in Computing Systems (CHI)
 ACM Conference on Computer-Supported Cooperative Work and Social Computing (CSCW)
 ACM Conference on Designing Interactive Systems (DIS)
 ACM Transactions on Computer-Human Interaction (TOCHI)
 Behaviour & Information Technology
 International Journal of Human-Computer Interaction (IJHCI)
 International Journal of Human-Computer Studies (IJHCS)
 Journal of the Association for Information Science and Technology (JASIST)
 Proceedings on Privacy Enhancing Technologies (PoPETs)

University Service

University of Michigan

- 2020, 2022 **Privacy@Michigan Privacy Day Symposium**
 Contributed to organizing the Privacy@Michigan symposium in celebration of International Data Privacy Day. Led a series of privacy workshops to raise public awareness of tips on securing personal data online. More about the workshops in [this article](#).
 - 2019, 2020 **Mentor, Undergraduate Research Opportunity Program**
 Mentored undergraduate students on research projects. Helped students build research skills and identify academic & career interests through close collaborations.
- U-M School of Information
- 2021 **Student coordinator, Michigan Interactive and Social Computing (MISC)**
 Organized speaker series at the confluence of human-computer interaction, social computing, and computer-supported cooperative work from researchers at the University of Michigan and beyond.
 - 2021 **Invited panelist, info sessions for PhD students**
 Shared advice and experience on topics such as finding summer internships, completing milestones, and navigating advisor-advisee relationships.

Media Coverage

- 2021 **Quoted by WXYZ**
 TV interview with WXYZ (Detroit ABC affiliate) on the dangers of data breaches and findings from our USENIX Security 2021 paper. Jul 2021.
- 2021 **California Attorney General adopts Privacy Options icon into CCPA**
 The Privacy Options icon we designed in a CHI 2021 paper has been adopted into the official CCPA regulations through [an amendment](#). Reported on by [IAPP](#) and [JD Supra](#). Mar 2021.
- 2020 **Article on data breach notification research**
 Chicago Policy Review reported on our research in “[Data Breach Notifications Are Too Complex](#).” Sep 2020.
- 2020 **Quoted by CIO Dive**
 Quoted on potential changes of online safety practices during the COVID-19 pandemic in CIO Dive article “[The Remote Playbook](#).” Apr 2020.

- 2018 **The Equifax data breach study and implications for credit freezes**
New York Times and Detroit Free Press quoted our SOUPS 2018 paper in discussing the importance of credit freezes. The Detroit Free Press article was picked up by the Associated Press and subsequently appeared in over 80 regional and local media outlets. Sep 2018.

Op-Eds

- 2021 **An open letter to the U-M community**
Co-wrote an op-ed on Michigan Daily (w/ Heeryung Choi, Jane Im, and Cindy Lin) on anti-Asian racism in the United States and in academia. Apr 2021.