Yixin Zou

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Research Interest

I conduct research at the intersection of privacy, security, and human-computer interaction. I am interested in understanding users' privacy and security attitudes and behaviors, and based on this, providing actionable solutions and guidance to help users better manage risks associated with their personal data, in contexts such as data breach notifications, phishing and spyware warnings, and website privacy choices. In designing interventions, I aspire to explore the idea of moving away from the "one-size-fits-all" approach and considering individual differences, such as by making interventions cater to the need of marginalized or underrepresented populations. I am a mixed-method researcher, with the most experience in survey, experiment, usability testing, interview, and more recently participatory design.

Education

Exp. 2022   Ph.D. in Information, University of Michigan
                  Advisor: Dr. Florian Schaub

2017   B.S. in Advertising, University of Illinois at Urbana-Champaign (UIUC)
                  Graduated with the Highest Honor (top 5% in the college)

Honors and Awards

[H6]   **SIGCHI Honorable Mention Award (Best Paper Nominee)**
         Examining the Adoption and Abandonment of Security, Privacy, and Identity Theft Protection Practices, with K. Roundy, A. Tamersoy, S. Shintre, J. Roturier and F. Schaub. 2020.

[H5]   **Facebook Fellowship, Finalist Distinction**
         Among the top 4% of about 1,800 applicants from over 100 universities worldwide. 2020. [press release]

[H4]   **UMSI Field Prelim Milestone Distinction Award**
         Awarded by the University of Michigan School of Information for exemplary completion of the milestone. The award is given to top 10% of students in this endeavor. 2019.

[H3]   **SIGCHI Honorable Mention Award (Best Paper Nominee)**
         Putting Your Warning Where Your Link Is: Improving and Evaluating Email Phishing Warnings, with J. Petelka and F. Schaub. 2019.

[H2]   **USENIX Symposium on Usable Privacy and Security (SOUPS) Distinguished Paper Award**
         "I've Got Nothing to Lose": Consumers' Risk Perceptions and Protective Actions after the Equifax Data Breach, with A. H. Mhaidli, A. McCall, and F. Schaub. 2018.

[H1]   **UMSI Pre-candidacy Project Milestone Distinction Award**
         Awarded by the University of Michigan School of Information for exemplary completion of the milestone. The award is given to top 10% of students in this endeavor. 2018.

Fellowships

[F2] **NortonLifeLock Research Group Graduate Fellowship**
NortonLifeLock (formerly known as Symantec), $20,000, 2019-2020 (1 of 3 recipients selected worldwide). [press release]

[F1] **Annual Fund Scholarship**
University of Illinois at Urbana-Champaign College of Media, $2,000, 2016-2017.

Grants

[G4] **SIGCHI Student Travel Grant**, ACM SIGCHI, $1,800, 2019.

[G3] **SOUPS Student Grant**, USENIX, $695, 2018.

[G2] **UMSI PhD Travel Grant**, University of Michigan School of Information, $1,000, 2018-2019.

[G1] **Rackham Conference Travel Grant**, University of Michigan Rackham Graduate School, $1,000, 2018.

Publications

Journal & Magazine Publications

[J2] **Listen Only When Spoken To: Interpersonal Communication Cues as Smart Speaker Privacy Controls**
Mhaidli, A. H., Venkatesh, M., Zou, Y., & Schaub, F. 2020. *Proceedings on Privacy Enhancing Technologies (PoPETs)*, 2020(2). [preprint]
Acceptance rate: 26.8%.

[J1] **Beyond Mandatory: Making Data Breach Notifications Useful for Consumers**
Zou, Y., & Schaub, F. 2019. *IEEE Security & Privacy*, 17(2), 67-72. [pdf]
Invited paper.

Conference Publications

[C8] **Examining the Adoption and Abandonment of Security, Privacy, and Identity Theft Protection Practices**
Zou, Y., Roundy, K., Tamersoy, A., Shintre, S., Roturier, J., & Schaub, F. 2020. To appear in *Proceedings of the 38th Annual ACM Conference on Human Factors in Computing Systems (CHI '20).* [preprint]
Acceptance Rate: 24.3%.

[C7] **"It's a scavenger hunt": Usability of Websites' Opt-Out and Data Deletion Choices**
Habib, H., Pearman, S., Wang, J., Zou, Y., Acquisti, A., Cranor, L. F., Sadeh, N., & Schaub, F. 2020. To appear in *Proceedings of the 38th Annual ACM Conference on Human Factors in Computing Systems (CHI '20).* [preprint]
Acceptance Rate: 24.3%.

[C6] **An Empirical Analysis of Data Deletion and Opt-Out Choices on 150 Websites**
Habib, H., Zou, Y., Jannu, A., Sridhar, N., Swoopes, C., Acquisti, A., Cranor, L. F., Sadeh, N., & Schaub, F. 2019. *Proceedings of the 15th Symposium on Usable Privacy and Security (SOUPS '19).* [pdf]
Acceptance Rate: 22.7%.

[C5] **"We Can't Live Without them!" App Developers' Adoption of Ad Networks and Their Considerations of Consumer Risks**

Mhaidli, A. H., Zou, Y., & Schaub, F. 2019. *Proceedings of the 15th Symposium on Usable Privacy and Security (SOUPS '19).* [pdf]
Acceptance Rate: 22.7%.

[C4] **You 'Might' Be Affected: An Empirical Analysis of Readability and Usability Issues in Data Breach Notifications**

Zou, Y., Danino, S., Sun, K., & Schaub, F. 2019. *Proceedings of the 37th Annual ACM Conference on Human Factors in Computing Systems (CHI '19).* [pdf]
Acceptance Rate: 23.8%.

[C3] **Put Your Warning Where Your Link Is: Improving and Evaluating Email Phishing Warnings**

Petelka, J., Zou, Y., & Schaub, F. 2019. *Proceedings of the 37th Annual ACM Conference on Human Factors in Computing Systems (CHI '19).* [pdf]
Acceptance Rate: 23.8%.

[C2] **"I've Got Nothing to Lose": Consumers' Risk Perceptions and Protective Actions after the Equifax Data Breach**

Zou, Y., Mhaidli, A. H., McCall, A., & Schaub, F. 2018. *Proceedings of the 14th Symposium on Usable Privacy and Security (SOUPS '18).* [pdf]
Acceptance Rate: 22.8%.

[C1] **Users' Attitudes towards the "Going Dark" Debate**
Addawood, A., Zou, Y., & Bashir, M. 2017. *Proceedings of the 2017 International Conference on Applied Human Factors and Ergonomics (AHFE '17).* [pdf]

Highly-Reviewed Workshop and Non-Proceedings Conference Publications

[W5] **An Empirical Analysis of Online Consent and Opt-Out Experiences**
Habib, H., Zou, Y., Jannu, A., Swoopes, C., Cranor, L. F., & Schaub, F. Paper presented at *the 11th Annual Privacy Law Scholars Conference (PLSC '18)*, Washington D.C., USA, May 30-31, 2018.

[W4] **Concern But No Action: Consumers' Reactions to the Equifax Data Breach**
Zou, Y. & Schaub, F. *Proceedings of the 36th Annual ACM Conference on Human Factors in Computer Systems (CHI '18) Late Breaking Work*, Montreal, Canada, April 22-26, 2018. [pdf]

[W3] **An Empirical Analysis of Website Data Deletion and Opt-Out Choices**
Habib, H., Zou, Y., Jannu, A., Swoopes, C., Acquisti, A., Cranor, L. F., Sadeh, N., & Schaub, F. Paper presented at *CHI '18 Workshop "The General Data Protection Regulation, an opportunity for the HCI Community?"*, Montreal, Canada, April 22, 2018. [pdf]

[W2] **Really Being There?: Telepresence in Virtual Reality Branded Content**
Shen, J., Stenger, M., Lechowicz J., Chen C., Yang, R., Sivasankaran, A., Wang Y., Zhang, J., Zou, Y., Katz, H., & Nelson M. R. Paper presented at *the Annual Conference of the Association for Education in Journalism and Mass Communication (AEJMC)*, Chicago, IL, August 9-12, 2017.

[W1] **The Impacts of Privacy Hypocrisy, Victim Characterization, Gender, and Context on Bystanders' Guilt Attribution in a Cyberbullying Suicide**

Yao, M., Zou, Y., Linz, D., & Jaoude, P. Paper presented at *the 67th Annual Conference of International Communication Association (ICA)*, San Diego, CA, May 25-29, 2017.

Posters

[P1]   **"I've Got Nothing to Lose": Consumers' Risk Perceptions and Protective Actions after the Equifax Data Breach**

Zou, Y., Mhaidli, A. H., McCall, A., & Schaub, F. Poster presented at *the 6th Midwest Security Workshop (MSW6)*, Urbana, IL, April 14, 2018.

Employment

06/2020-
08/2020   **Facebook Privacy & Data Use Team** , Menlo Park, CA.
User Experience Researcher Intern.

05/2019-
08/2019   **NortonLifeLock Research Group** (formerly Symantec Research Labs), Culver City, CA.
Research Intern.

- Conducted an online survey to examine the adoption and abandonment of recommended practices for security, privacy, and identity theft protection.

- Planned, organized, and ran focus groups to understand how customer support at security companies and spyware notifications could be improved to serve the need of intimate partner abuse victims.

01/2019-
04/2019   **Mozilla Corporation**, Mountain View, CA.
User Experience Researcher Intern.

- Ran usability testings on wireframe prototypes for Firefox Monitor. Insights were integrated to the product's new site to refine risk communications and design.

- Conducted an online experiment to investigate how content and format impact users' decision to react to data breach notifications.

09/2017-
Present   **University of Michigan**, Ann Arbor, MI.
Graduate Student Research Assistant.

- Conduct mixed method research on user interactions with privacy and security notices and choices in various contexts. Topics include but not limited to: understanding consumer reactions to data breaches, improving phishing warnings in email clients, developing effective mechanisms for marketing/targeted ads opt-outs and data deletion.

09/2016-
05/2017   **Illinois Informatics Institute**, Champaign, IL.
Undergraduate Research Fellow.

- Investigated social and psychological factors that come into play in users' debate on controversial topics on Twitter, such as encryption backdoor and vaccine.
- Duties included annotating tweets, building regression models of survey data, and creating visualization dashboards.

04/2016-
05/2017   **College of Media**, University of Illinois at Urbana-Champaign, Champaign, IL.
Undergraduate Research Assistant.

- Assisted with online experiments on bystanders' attitude toward cyberbullying cases with different kinds of privacy violation and sources of breached data. Duties included drafting experimental design, constructing and running surveys on MTurk.
- Examined consumer attitude and reactions to content branded in virtual reality technology. Assisted with filming a 360-degree video as the testing material and collecting interview data.

09/2015-   **Center for Innovation in Teaching and Learning**, UIUC, Champaign, IL.
05/2017   Data Analytics Intern.

- Coded and analyzed open-ended survey data of UIUC's Massive Open Online Courses (MOOCs) in ATLAS.ti and SPSS.
- Provided assistance to clients with survey question writing, sampling methodology, pilot testing, statistical analyses, and report writing.

Invited Talks

[T7]   **Panelist: Social Implications of Data Privacy**
Tech for Social Good, University of Michigan, Ann Arbor, MI, USA, March 12, 2020.

[T6]   **Spyware and Digital Intimate Partner Abuse**
Sexual Assault Prevention and Awareness Center (SAPAC), University of Michigan, Ann Arbor, MI, USA, March 11, 2020.

[T5]   **An Empirical Analysis of Data Deletion and Opt-Out Choices on 150 Websites**
Symposium on Usable Privacy and Security (SOUPS), Santa Clara, CA, USA, August 13, 2019.

[T4]   **Lengthy, Vague, and Inactionable: Issues with Data Breach Notifications and Implications for Public Policy**
The Federal Trade Commission's 4th annual PrivacyCon, Washington D.C., USA, June 27, 2019.

[T3]   **An Empirical Analysis of Readability and Usability Issues in Data Breach Notifications**
ACM Conference on Human Factors in Computing Systems (CHI), Glasgow, UK, May 7, 2019.

[T2]   **Designing Effective and Actionable Data Breach Notices: Implications for Firefox Monitor**
Mozilla, Firefox Monitor. Mountain View, CA, USA, November 14, 2018.

[T1]   **"I've Got Nothing to Lose": Consumers' Risk Perceptions and Protective Actions after the Equifax Data Breach**
Symposium on Usable Privacy and Security (SOUPS), Baltimore, MD, USA, August 14, 2018.

Media Coverage and Op-eds

[P4]   **Website Privacy Options Aren't Much of A Choice Since They're Hard to Find and Use**
Hana Habib and Lorrie Cranor, the Conversation, October 31, 2019.

[P3]   **Companies Send Confusing Alerts About Data Breaches**
Laurel Thomas, futurity.org, May 19, 2019.

[P2]   **Freezing Credit Will Now Be Free. Here's Why You Should Go for It.**
Ann Carrns, New York Times, September 14, 2018.

[P1]   **Credit freeze: A Misunderstood Freebie That You Actually Want**
Susan Tompor, Detroit Free Press, September 6, 2018. (Reprinted by over 80 regional and local media outlets)

Undergraduate/Master Student Research Advising

Year	Name	Placement
2019-present	Jamie Lai (SI Undergrad)	-
2019-present	Michael Ni (CS Undergrad)	-
2018	Kaiwen Sun (SI Master)	Ph.D. student, University of Michigan
2018	Shawn Danino (SI Master)	Policy Research Lead, Building Matters Ann Arbor
2018	Austin McCall (SI Undergrad)	Advisory Consultant, Deloitte

Teaching Experience

Fall 2019 **Graduate Student Instructor**, SI 501: Contextual Inquiry, University of Michigan (39 students). Primary instructor: Kentaro Toyama.

Fall 2018 **Graduate Student Instructor**, SI 110: Introduction to Information, University of Michigan (47 students). Primary instructor: Chris Teplovs.

Service

External

Program Committee:

- ACM Conference on Human Factors in Computing Systems (CHI) Late Breaking Works: 2020

- IEEE PerCom Workshop on Context Systems Design, Evaluation and Optimization (CoSDEO): 2020

Invited External Reviewer:

- Proceedings on Privacy Enhancing Technologies (PoPETs): 2020

- ACM Conference on Human Factors in Computing Systems (CHI): 2020

- ACM Conference on Computer Supported Cooperative Work and Social Computing (CSCW): 2020

- ACM conference on Designing Interactive Systems (DIS): 2020

Internal (University and Department)

Mentoring:

- Undergraduate Research Opportunity Program: 2019-2020

- UMSI Peer Mentorship Program: since 2018

Organizing:

- University of Michigan Privacy Day: 2020

- University of Michigan Dissonance Event Series: since 2019

Skills

Quantitative Methods	Survey, Experiment, Log analysis
Qualitative Methods	Interview, Focus group, Participatory design, Usability testing, Content analysis
Statistical Analysis	R, SPSS, Microsoft Excel
Survey Design	Qualtrics, SurveyGizmo
Qualitative Coding	ATLAS.ti, NVivo
Programming Languages	Python, JavaScript, HTML, CSS
Languages	Mandarin (native), English (full proficiency)

Relevant Coursework

Theory-focused   Doctoral Foundations Seminar in Information (SI 701)
                        Algorithmic Culture (SI 710)
                        Science, Technology, and Society (SI 719)
                        Consumer Behavior (MKT 898)
Method-focused   Research Methods (SI 840)
                        Qualitative Methods (SI 724)
                        Statistical Methods (PSYCH 613, PSYCH 614)
                        Experimental Methods (SI 860)