Wentao Guo
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EDUCATION

PhD in *Computer Science* Expected May 2026
University of Maryland College Park, MD
- Advised by Michelle Mazurek, focusing on human-centered security and privacy

B.A. in *Computer Science* and *Science, Technology, and Society* May 2019
Pomona College Claremont, CA
- *Magna cum laude*, Phi Beta Kappa

PUBLICATIONS

Wentao Guo, Aditya Kishore, Adam Aviv, Michelle L. Mazurek. A qualitative analysis of practical de-identification guides. CCS '24 (ACM Conference on Computer and Communications Security). October 2024.

Michael Coblenz, **Wentao Guo**, Kamatchi Voozhian, Jeffrey S. Foster. A qualitative study of REST API design and specification practices. VL/HCC '23 (IEEE Symposium on Visual Languages and Human-Centric Computing). October 2023.

Wentao Guo, Jason Walter, and Michelle L. Mazurek. The role of professional product reviewers in evaluating security and privacy. USENIX '23 (USENIX Security Symposium). August 2023.

Wentao Guo, Jay Rodolitz, and Eleanor Birrell. Poli-see: An interactive tool for visualizing privacy policies. WPES '20 (ACM CCS Workshop on Privacy in the Electronic Society). November 2020.

Zaina Aljallad, **Wentao Guo**, Chhaya Chouhan, Christy LaPerriere, Jess Kropczynski, Pamela Wisnewski, and Heather Lipford. Designing a mobile application to support social processes for privacy decisions. USEC '19 (NDSS Workshop on Usable Security). February 2019.

WORK EXPERIENCE

IoT Design Fellow June 2023 – September 2023
Consumer Reports New York, NY
- Designed, conducted, and analyzed four studies (surveys, focus groups, and user studies) on consumer perspectives on IoT security and privacy labels, in collaboration with two other fellows
- Interviewed IoT manufacturers to understand challenges regarding the process for companies to attest to their products' security and privacy

Software developer September 2019 – June 2021
Epic Systems Verona, WI
- Designed and developed features for Cosmos, a service that aggregates electronic health records of >100 million patients in a HIPAA-regulated limited dataset for research and data-driven healthcare
- Led a high-priority project creating software to convert Cosmos into a highly scalable form, in order to accommodate drastically increased research needs during the COVID-19 pandemic
- Organized company-wide voter registration efforts ahead of the November 2020 election, leading remote workshops that helped 110 employees register to vote

Research programmer June 2019 – August 2019

Ecosystem Dynamics and Forecasting Lab Virginia Tech

- Fixed bugs in the open-source General Lake Model (GLM) project: https://github.com/AquaticEcoDynamics/GLM/pull/16
- Wrote an R script to automatically format and validate data that is regularly uploaded by field sensors
- Prototyped a user interface for water quality forecasts using the Shiny R package

SELECTED RESEARCH PROPOSALS and INVITED TALKS

[talk] Incentives, expertise, and capacity: Unlocking the power of professionals to protect users' security and privacy. Virginia Polytechnic University. May 2024.

[talk] Understanding de-identification guidance and practices for researchers. NSF Cybersecurity Innovation for Cyber Infrastructure (CICI) PI meeting. March 2024.

[proposal] Richard Roberts, **Wentao Guo**, Omer Akgul, Michelle L. Mazurek, and Dave Levin. This proposal was brought to you by content creators' mental models of security & privacy products. IEEE S&P Workshop on Technology and Consumer Protection (ConPro '23). May 2023.

ACTIVITIES

Project mentor October 2023, 2024
Tech + Research: Welcoming Women to Computing Research University of Maryland

- Designing short research project in human-centered security and privacy, and mentoring women undergraduates as they complete them over the course of a weekend

Peer mentor September 2023 – Present
Computer Science Graduate Program University of Maryland

- Meeting regularly with first-year grad students to offer support and guidance on graduate life, research, and coursework

Committee member June 2022 – Present
Committee for a Better Environment College Park, MD

- Leading a group researching a climate action plan for the City of College Park
- Writing articles and planning events to communicate environment-related information (e.g., financial resources for improving home energy efficiency) to residents

Chair of Community Building October 2021 – Present
Computer Science Graduate Student Committee University of Maryland

- Managing student-organized community events for the department
- Planning regular board game socials

Organizer September 2021 – Present
Graduate Security Reading Group University of Maryland

- Planning weekly research paper discussions, practice talks, invited speakers, and workshops

Project leader January 2020 – June 2021
350 Madison Madison, WI

- Led a team of six volunteers helping the City of Madison implement a program to track municipal and commercial building energy use (aka *benchmarking*)

- Researched the benefits of benchmarking, provided feedback on the content and usability of a prototype benchmarking data portal, and conducted interviews with business leaders to inform future city-wide energy efficiency policy
- Received one of two outstanding volunteer recognitions in 2020

Organizer September 2017 – May 2019
Tech for Good Pomona College

- Co-founded a student organization focused on (1) using student expertise in technology for good and (2) creating campus-wide discussions on the social, ethical, and legal aspects of technology
- Organized three talks by experts in technology, law, and ethics (median attendance of 80), as well as other discussions and events centered around similar themes
- Created a new website for a non-profit serving local low-income communities, in order to make their services more accessible and responsive

SELECTED AWARDS

MC2 Seed Grant University of Maryland, Fall 2023
Awarded $1,890 to fund a research proposal on perceptions of tracking and inference in VR

Paul B. Yale Computer Science Prize Pomona College, Spring 2019
Awarded to three outstanding seniors majoring in Computer Science

Science, Technology and Society Prize Pomona College, Spring 2019
Awarded to one outstanding senior majoring in STS

Distinction in the Senior Exercise: Computer Science Pomona College, Spring 2019
"Privacy Poli-see: An interactive tool for visualizing privacy policies" (advised by Eleanor Birrell)

Distinction in the Senior Exercise: Science, Technology, and Society Pomona College, Spring 2019
"Towards a critical understanding of deepfakes: Developing a teaching module and more" (advised by Laura Perini and Brian Keeley)

TEACHING ASSISTANTSHIPS

Human Factors in Security and Privacy (Fall 2024) UMD (Computer Science)
Computer Systems (Spring 2019) Pomona College (Computer Science)
Computability and Logic (Spring 2018) Pomona College (Computer Science)
HTML & CSS (Summer 2017) Northwestern Center for Talent Development, grades 7 & 8
Literary Analysis (Summer 2017) Northwestern Center for Talent Development, grades 7 & 8

GUEST LECTURES

Qualitative research methods Fall 2024
Human Factors in Security and Privacy UMD (Computer Science)

Intro to security Spring 2024
Privacy, Security, and Ethics for Big Data UMD (Information Studies)

AI and algorithms Spring 2023
Privacy, Security, and Ethics for Big Data UMD (Information Studies)

Buffer overflow Spring 2022

Computer and Network Security — UMD (Computer Science)

Deepfakes — Spring 2019
Philosophy of Technology — Pomona College (Philosophy)

Intro to web development — Spring 2018
Claremont Splash (student-led educational event for high schoolers)

Deepfakes and deceptive technologies — Spring 2018
Claremont Splash (student-led educational event for high schoolers)

Intro to web development — Fall 2017
5C Hackathon

EXTERNAL REVIEWING

- CHI ’24 (1 review)
- SOUPS ’24 (1 sub-review)
- CSCW ’24 (2 reviews)
- International Journal of Human-Computer Studies ’23 (1 review)
- IEEE S&P ’23 (1 sub-review)

SKILLS

Computer – Python / NLTK (natural language processing) / Puppeteer (browser automation), R, Java, HTML, CSS, JavaScript / TypeScript / D3.js (data visualization), 11ty (web dev), C, C#, Visual Basic, LaTeX, ML, MUMPS (M), Unity
Languages – spoken Mandarin (native), French (proficient)