

Yash Vekaria

Research Interests

Web and AI Privacy; Security; Technology Policy; Internet Measurements

Education

2021– **University of California, Davis**

Ph.D. in Computer Science

Thesis: *Improving Online Privacy by Auditing Opaque Data Practices in Modern Digital Ecosystems*

My dissertation develops black-box auditing techniques that reveal how online services collect, share, and use personal data across the web, smart devices, and AI systems, and translates these findings into regulatory enforcement and policy.

2016–2020 **LNM Institute of Information Technology**

B.Tech. in Computer Science

Experiences

2021– **University of California, Davis, Research Assistant**

Advisor: Zubair Shafiq

2024– **HTTP Archive, Open Source Contributor**

2024 **Quantcast, Software Engineering Intern**

2022 **Max Planck Institute für Informatik, Visiting Research Fellow**

Advisor: Savvas Zannettou

2020–2021 **Innovaccer, Data Scientist**

Honors & Awards

2026 **Applied Research Competition Finalist, CSAW 2026**

2026 **Rising Star in CS, University of Iowa**

2025 **Distinguished Reviewer Award, USENIX Security Symposium 2025**

2024 **GGCS Ph.D. Fellowship, University of California, Davis**

2023 **Cybersecurity Summer Fellow, Georgia Tech**

Publications

Under review **Profiling the Profilers: Exposing Pitfalls in Data Broker Surveillance**

Yash Vekaria, Jennifer King, Serge Egelman, Alan Mislove, Zubair Shafiq

Under review **A Practical Evaluation of Privacy from Memory Architectures of LLM Platforms**

Yash Vekaria, Harsh Karia, Zubair Shafiq

Under review **SoK: Advances and Open Problems in Web Tracking**

Yash Vekaria*, Yohan Beugin*, Shaoor Munir, Gunes Acar, Nataliia Bielova, Steven Englehardt, Umar Iqbal, Alexandros Kapravelos, Pierre Laperdrix, Nick Nikiforakis, Jason Polakis, Franziska Roesner, Zubair Shafiq, Sebastian Zimmeck (*equal contribution)

Under review **FP-Agent: Fingerprinting AI Browsing Agents**

Ethan Wang, Zubair Shafiq, **Yash Vekaria*** (*primary advisor)

- Under review **SST-Guard: Detecting & Characterizing Server-Side Google Analytics in the Wild**
Muhammad Jazlan, Alex Gamero-Garrido, Zubair Shafiq, **Yash Vekaria*** (**primary advisor*)
- Under review **GTM-Config: Reverse Engineering Google Tag Manager in the Wild**
Muhammad Jazlan, Eman Nabeel, **Yash Vekaria**, Zubair Shafiq
- IMC 2027 **Tracking Conversations: Measuring Content and Identity Exposure on AI Chatbots**
One-shot revision Muhammad Jazlan, Ethan Wang, **Yash Vekaria**, Zubair Shafiq
- S&P 2026 **Understanding Data Collection, Brokerage, & Spam in Lead Marketing Ecosystem**
Yash Vekaria, Nurullah Demir, Konrad Kollnig, Zubair Shafiq
47th IEEE Symposium on Security and Privacy (**Oakland**), 2026
Acceptance rate: 12.6% (135/1070)
Appeared at 3rd FTC Conference on Marketing and Public Policy, 2026
Appeared at 5th CNIL Privacy Research Day, 2026
Finalist at CSAW Applied Research Competition, 2026
- CCS 2026 **Keys on Doormats: Exposed API Credentials on the Web**
Nurullah Demir, **Yash Vekaria**, Georgios Smaragdakis, Zakir Durumeric
33rd ACM Conference on Computer and Communications Security, 2026
- IMC 2026 **PixelConfig: Longitudinal Measurement and Reverse-Engineering of Meta Pixel Configurations**
Abdullah Ghani, **Yash Vekaria***, Zubair Shafiq (**primary advisor role*)
26th ACM Internet Measurement Conference, 2026
- EuroS&P 2026 **Multi-Stakeholder Vulnerability Notifications in the Ad-Tech Supply Chain**
Yash Vekaria, Rishab Nithyanand, Zubair Shafiq
11th IEEE European Symposium on Security and Privacy, 2026
- PETS 2026 **On the Suitability of LLM-Driven Agents for Dark Pattern Audits**
Chen Sun, **Yash Vekaria**, Rishab Nithyanand
26th Privacy Enhancing Technologies Symposium, 2026
Acceptance rate: 21.7% (130/706)
- ICWSM 2026 **Turning Trust to Transactions: Tracking Affiliate Marketing and FTC Compliance in YouTube's Influencer Economy**
Chen Sun, **Yash Vekaria**, Zubair Shafiq, Rishab Nithyanand
20th International AAAI Conference on Web and Social Media, 2026
Acceptance rate: 20%
- USENIX 2025 **Big Help or Big Brother? Auditing Tracking, Profiling, and Personalization in Generative AI Assistants**
Yash Vekaria, Aurelio Loris Canino, Jonathan Levitsky, Alex Ciechonski, Patricia Callejo, Anna Maria Mandalari, Zubair Shafiq
34th USENIX Security Symposium, 2025
Acceptance rate: 19% (456/2400)
- SM+S 2025 **Auditing the Compliance and Enforcement of Twitter's Advertising Policies**
Yash Vekaria, Zubair Shafiq, Savvas Zannettou
Social Media + Society 2025 11 (1)
- IMC 2024 **Watching TV with the Second-Party: A First Look at Automatic Content Recognition in Smart TVs**
Yash Vekaria*, Gianluca Anselmi*, Alex D'Souza, Patricia Callejo, Anna Maria Mandalari, Zubair Shafiq (**joint first authors*)
24th ACM Internet Measurement Conference, 2024
Acceptance rate: 21.3% (54/253)
Cited in five plaintiff petitions filed by the Texas AG against Samsung, LG, Sony, Hisense, and TCL
Cited in three private class-action lawsuits filed in California against Samsung, Hisense, and TCL
- S&P 2024 **The Inventory is Dark and Full of Misinformation: Understanding the Abuse of Ad Inventory Pooling in the Ad-Tech Supply Chain**
Yash Vekaria, Rishab Nithyanand, Zubair Shafiq
45th IEEE Symposium on Security & Privacy, 2024
Acceptance rate: 17.8% (261/1463)

Teaching

- ECS 152A **Computer Networks**, *Guest Lecturer*
Fall 2024, University of California, Davis
- ECS 152A **Computer Networks**, *Guest Lecturer*
Spring 2022, University of California, Davis
- ECS 152A **Computer Networks**, *Teaching Assistant*
Spring 2022, University of California, Davis
- CSE 213L **Data Structures & Algorithms**, *Teaching Assistant*
Spring 2019, LNM Institute of Information Technology
- CSE 216L **Computer Organization & Architecture**, *Teaching Assistant*
Fall 2018, LNM Institute of Information Technology
- CSE 104L **Computer Programming**, *Teaching Assistant*
Fall 2017, LNM Institute of Information Technology

Mentoring

Doctoral

- 2025– **Ethan Wang**, *UC Davis*
- 2025– **Humaira Fasih Ahmed Hashmi**, *UC Davis*
- 2025– **Muhammad Jazlan**, *UC Davis*
- 2024–2026 **Chen Sun**, *University of Iowa*
- 2024–2025 **Aurelio Loris Canino**, *UNIRC, Now: Postdoc, University College London*

Undergraduate

- 2026– **Kavish Kartha**, *UC Davis*
- 2025–2026 **Harsh Karia**, *UC Davis, Now: Software Engineer, Google*
- 2024–2025 **Abdullah Ghani**, *LUMS*
- 2024–2025 **Jonathan Levitsky**, *UC Davis, Now: AI Research Engineer, Archer*
- 2023–2024 **Alexander D'Souza**, *UC Davis, Now: Machine Learning Engineer, Typeface*

Mentorship Programs

- Spring 2023 **E-PRIME**, *Mentor, UC Davis*
E-PRIME: Education Partnership in Research, Inclusion and Mentoring Experiences
- Spring 2023 **MANRRS**, *Mentor, UC Davis*
MANRRS: Minorities in Agriculture, Natural Resources, and Related Sciences

Services

- 2027 **Program Committee Member**
USENIX Security Symposium
Privacy Enhancing Technologies Symposium (PETS)
- 2026 **Program Committee Member**
The Web Conference (WWW)
Privacy Enhancing Technologies Symposium (PETS)
Workshop on Measurements, Attacks, and Defenses for the Web (MADWeb)
- 2026 **Organization Committee Member**
Web Chair, ACM Internet Measurement Conference (IMC)
- 2025 **Program Committee Member**
USENIX Security Symposium
Distinguished Reviewer Award
- 2025 **Invited Reviewer**
ACM Transactions on Web (TWeb)

- 2025 **Artifact Evaluation Committee Member**
Privacy Enhancing Technologies Symposium (PETS)
- 2025 **Organization Committee Member**
Web Almanac (HTTP Archive Project)
- 2024 **Program Committee Member**
ACM Conference on Computer and Communications Security (CCS)
ACM Workshop on Artificial Intelligence and Security (AISec)
Workshop on Measurements, Attacks, and Defenses for the Web (MADWeb)
ACM Web Science Conference (WebSci)
- 2024 **Artifact Evaluation Committee Member**
Privacy Enhancing Technologies Symposium (PETS)
Network and Distributed System Security Symposium (NDSS)
- 2023 **Program Committee Member**
ACM Conference on Fairness, Accountability, and Transparency (FAccT)
ACM Workshop on Artificial Intelligence and Security (AISec)
ACM Web Science Conference (WebSci)
IEEE Conference on Sensing, Communication, and Networking (SECON)
- 2023 **Artifact Evaluation Committee Member**
IEEE Workshop on Offensive Technologies (WOOT)

Invited Talks

- Nov 2026 **Understanding Data Collection, Brokerage, and Spam in Lead Marketing**
CSAW, New York University
- Mar 2026 **Black-Box Audits of Personalization Ecosystems on the Web**
Rising Stars in CS Colloquium, University of Iowa
Center for Cybersecurity Seminar, NYU Abu Dhabi (Virtual)
- Mar 2026 **Understanding Data Collection, Brokerage, and Spam in Lead Marketing**
Federal Trade Commission (FTC), Washington D.C.
- Feb 2026 **Memory and Personalization in LLMs**
CITRIS Tech Policy Workshop, UC Berkeley
- Sep 2025 **Understanding Opaque Data Practices and Risks in Online Marketing and User Personalization**
Stanford Security Lunch, Stanford University
- Jul 2024 **Uncovering hidden security and privacy threats in online advertising**
University College London (UCL), United Kingdom
- May 2023 **Be Aware: Dark Pooling Uncovered**
AdExchanger's Programmatic I/O, MGM Las Vegas
- Jul 2021 **Differential Tracking Across Topical Webpages of Indian News Media**
CMLBDA, The LNM Institute of Information Technology, India

Selected Media Coverage

- Sep 2026 **LG defends smart-TV features amid audio surveillance allegations**
[Al Jazeera](#) article by *Hoda Sherif*
- May 2026 **Chatbot Ad IDs Share Data To Google, Microsoft, Other Analytics Providers**
[MediaPost](#) article by *Laurie Sullivan*
- Mar 2026 **Security boffins scoured the web and found hundreds of valid API keys**
[The Register](#) article by *Thomas Claburn*
- Mar 2026 **Security credentials inadvertently leaked on thousands of websites**
[New Scientist](#) article by *Chris Stokel-Walker*

- Oct 2025 **AI Browsers are a Cybersecurity Time Bomb**
[The Verge](#) article by *Robert Hart*
- June 2025 **Yes, your TV is probably spying on you. Your fridge, too. Here's what they know.**
[NY Times](#) article by *Rachel Cericola, Jon Chase and Lee Neikirk*
- Mar 2025 **Roku, Amazon, and practically every company in the streaming business are inventing new ways to make money off your data.**
[Vox](#) article by *Adam Clark Estes*
- Mar 2025 **You know that generative AI browser assistant extension is probably beaming everything to the cloud, right?**
[The Register](#) article by *Thomas Claburn*
- Nov 2024 **You think you're watching smart TV ... In fact it's watching you**
[The Times](#) article by *Mark Sellman*
- Sep 2024 **Smart TVs take snapshots of what you watch multiple times per second**
[New Scientist](#) article by *Jeremy Hsu*
- Sep 2023 **Elon Musk's X is ignoring its own ad policies, a new study finds**
[Fast Company](#) article by *Chris Stokel-Walker*