

Contact Info

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Research Interests

Summary Privacy, Ads & Tracking Ecosystems, Filter Rule Generation, Network Measurements

Education

- Fall 2018 – **Doctor of Philosophy, UC Irvine.**
ongoing Electrical Engineering and Computer Science (EECS)
○ Advisor: [Athina Markopoulou](#)
- 2021 **Master of Science in Computer Engineering, UC Irvine**, GPA–3.96/4.0.
○ Advisor: [Athina Markopoulou](#)
○ Thesis: [Characterizing the Fire TV Advertising and Tracking Ecosystem](#)
- 2009 **Bachelor of Computer Science and Engineering, UC Irvine**, GPA–3.6/4.0.
Campuswide Honors Program – Undergrad research on watershed extraction.
○ Undergrad Advisor: [David Eppstein](#)
○ Senior Research Report: [Watershed Extractions](#)

Publications

- *TR: technical report
- 4 **H. Le**, S. Elmalaki, A. Markopoulou, Z. Shafiq, “AutoFR: Automated Filter Rule Generation for Adblocking,” *To appear in the Proceedings of the 32nd USENIX Conference on Security Symposium*, August 2023, preprint [arXiv:2202.12872](#).
 - 3 R. Trimananda, **H. Le**, H. Cui, J. Ho, A. Shuba, A. Markopoulou, “OVRseen: Auditing Network Traffic and Privacy Policies in Oculus VR,” *Proceedings of the 31st USENIX Conference on Security Symposium*. August 2022.
○ Presented by R. Trimananda at [PrivacyCon 2022](#) (1:46:52), and Duck Duck Go.
 - 2 **H. Le**, A. Markopoulou, Z Shafiq, “CV-INSPECTOR: Towards Automating Detection of Adblock Circumvention,” *Proceedings of Network and Distributed System Security Symposium 2021*.

- 1 J. Varmarken[†], **H. Le**[†], A. Shuba, A. Markopoulou, Z. Shafiq, "The TV is Smart and Full of Trackers: Measuring Smart TV Advertising & Tracking," in *Proceedings of Privacy Enhancing Technologies Symposium (PETS/PoPETS) 2020*, Issue 2, pp. 129-154, May 2020. ([†]: co-first authors)

- Presented by J. Varmarken at PrivacyCon 2021 (15:50), and to Consumer Reports and Duck Duck Go.

*TR1 A. Shuba, E. Bakopoulou, M. A. Mehrabadi, **H. Le**, D. Choffnes, A. Markopoulou, "AntShield: On-Device Detection of Personal Information Exposure," arXiv:1803.01261.

Work Experience

Sept. 2018 – **Graduate Student Researcher**, UC Irvine.

Present My research is broadly on privacy by conducting network measurements, designing of frameworks and methodologies to improve transparency, auditability, and control of data collection practices for end-users across different platforms.

June 2021 – **Automation Engineer Intern**, eyeo.

Sept. 2021 Worked with the Anti-CV team to deal with ad-circumvention by customizing CV-Inspector to detect when sites circumvent adblockers.

Aug. 2017 – **Senior Software Developer**, *Internet Brands*, El Segundo, CA.

June 2020 Architect technical solutions for new features for websites, integrate with third-party partners, and plan production deployments for high traffic sites.

Aug. 2016 – **Technical Consultant**, with Prof. Markopoulou's group, UC Irvine, Calit2.

May 2018 Software development for the AntMonitor project: Android UI design, automated APK collection, contributing to research paper (TR1).

Aug. 2013 – **Lead Software Developer**, *Metronome Software*, Laguna Hills, CA.

Aug. 2017 Lead in software development for multiple projects funding by government contracts, related to web development.

April 2011 – **Software Developer**, *Metronome Software*, Laguna Hills, CA.

Aug. 2013 Involved in web development of multiple projects funded by government contracts.

July 2009 – **Software Developer**, *InQuira (Oracle)*, Torrance, CA.

April 2011 Development of Adobe Flex applications.

Invited Talks

Apr. 2023 "Automating Filter Rule Generation for Adblocking", Hosted by Carmela Troncoso, EPFL, Lausanne, Switzerland.

Oct. 2022 "AutoFR: Automated Filter Rule Generation for Adblocking", Ad-Filtering Dev Summit 2022, Amsterdam, Netherlands.

Oct. 2021 "Towards Automatic Generating and Testing of Filter Rules", Adblocker Dev Summit 2021, Virtual.

Oct. 2020 "Revisiting Adblock Circumvention", Adblocker Dev Summit 2020, Virtual.

Sept. 2019 "Measuring and Mitigating Adblock Circumvention in the Wild", Adblocker Dev Summit 2019, Amsterdam, Netherlands.

Service and Outreach

- 2023-2024 PoPETs Technical Program Committee Member.
- 2022-present Co-founder of Nothing to Hide? A Data Privacy Podcast.
- This initiative aims to raise awareness of privacy issues to a general audience and is led by PhD students and postdocs across multiple institutions within the ProperData NSF Frontier project.
- 2023-present Academic Development Committee Member of Society of Graduate Electrical Engineers & Computer Scientist.
- April 2023 Panelist at the Electrical Engineering Specialization Panel, hosted by IEEE Student Branch at UC Irvine.
- 2022-2023 Elected Officer of Society of Graduate Electrical Engineers & Computer Scientist.
- 2022-2023 USENIX Security Artifact Reviewer.
- 2022-2023 PoPETs Artifact Reviewer.
- Nov. 2022 Contributed to FTC Request for Comments on Commercial Surveillance and Data Security. Submitted by Northeastern's Institute on Cybersecurity and Privacy.
- June 2022 Graduate Students Panel for Privacy and IoT Research Exploration Workshop 2. Hosted by the ProperData NSF Frontier project.

Awards and Honors

- 2023 IEEE Security & Privacy Student Grant
- 2023 NDSS Student Grant
- 2023 HotMobile Student Grant
- 2018 UCI EECS Department Fellowship Award
- 2009 UCI Campuswide Honors Program

Skills

- Languages Python, HTML, CSS, JavaScript, Java
- Tools Selenium, scikit-learn, Chrome Extensions, AWS EC2, Docker, Frida
- OS Mac OS, Ubuntu, Android

References

Available upon request, please get in touch with me