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)

O Advisor: Athina Markopoulou

2021 Master of Science in Computer Engineering, UC Irvine, GPA-3.96/4.0.

o Advisor: Athina Markopoulou

o 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: <u>David Eppstein</u>

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.
 - o 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 <u>PrivacyCon 2021</u> (15:50), and to Consumer Reports and Duck Duck Go.
- *TR1 Anastasia Shuba, Evita Bakopoulou, Milad Asgari Mehrabadi, **Hieu Le**, David Choffnes, Athina Markopoulou, "AntShield: On-Device Detection of Personal Information Exposure," <u>arXiv:1803.01261</u>.

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 <u>AntMonitor</u> 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

- 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

2022-present Co-founder of Nothing to Hide? A Data Privacy Podcast.

- o 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.
 - 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 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