

Anastasia Shuba

PERSONAL INFORMATION	Website: https://nshuba.github.io/	E-mail: ashuba22@gmail.com
INTERESTS	Mobile and IoT: Security and Privacy, Data Analytics, Machine Learning, Privacy Policies	
EDUCATION	University of California, Irvine	
	<i>Ph.D in Computer Engineering</i>	<i>Sept. 2014 – Jun. 2019</i>
	<ul style="list-style-type: none">• Thesis: “Mobile Data Transparency and Control”• Advisor: Athina Markopoulou• GPA: 3.7	
	<i>M.S. in Computer Engineering</i>	<i>Sept. 2014 – Jun. 2016</i>
	<ul style="list-style-type: none">• Thesis: “AntMonitor: A System for Mobile Network Monitoring”• Advisor: Athina Markopoulou• GPA: 3.7	
	<i>B.S. in Computer Engineering</i>	<i>Sept. 2010 – Jun. 2014</i>
	<ul style="list-style-type: none">• Thesis: “Home Automation with Android”• Advisor: Kwei-Jay Lin• GPA: 3.8• Graduated with Cum Laude	
WORK EXPERIENCE	DuckDuckGo	
	<i>Senior Privacy Engineer</i>	<i>May 2022 – present</i>
	Working on privacy solutions for mobile and web.	
	Broadcom Software	
	<i>R&D Engineer</i>	<i>Aug. 2019 – Apr. 2022</i>
	Designed and built features for a cross-platform (Windows, OS X, and Linux) network intrusion detection engine that is part of Symantec Endpoint Protection.	
	Symantec Corporation	
	<i>Software Engineering Intern</i>	<i>Jun. 2018 – Sept. 2018</i>
	Worked on network security solutions for Android and iOS.	
	Metronome Software	
	<i>Graduate Software Engineering Intern</i>	<i>Jun. 2016 – Sept. 2016</i>
	<i>Graduate Software Engineering Intern</i>	<i>Jun. 2015 – Aug. 2015</i>
	<i>Software Engineering Intern</i>	<i>Oct. 2012 – Sept. 2014</i>
	Designed and implemented a system aimed toward automatic forensic analysis using Volatility, The Sleuth Kit, LibVMI, and various virtualization platforms. Designed and implemented Android applications using Java and SQLite. Implemented web servers using Java, Hibernate, PostgreSQL, and Python.	

Praxis BioSciences

Software Engineering Intern

Jun. 2012 – Sept. 2012

Developed medical systems that involved Android devices and microcontrollers.

RESEARCH EXPERIENCE

University of California, Irvine

Graduate Research Assistant

Sept. 2014 – Jun. 2019

Advisor: Athina Markopoulou

Designed and implemented Android applications aimed at helping users preserve their privacy. Developing machine learning models to predict presence of personal information, trackers, and advertisement in mobile network traffic.

Undergraduate Research Assistant

Sept. 2013 – Jun. 2014

Advisor: Kwei-Jay Lin

Designed and implemented an Android app used to control a home automation system.

Undergraduate Research Assistant

Apr. 2012 – Jun. 2012

Advisor: Rainer Doemer

Enhanced system level design in C++ for a SpecC reference compiler and simulator.

HONORS AND AWARDS

PETS 2018: The Andreas Pfitzmann Best Student Paper Award

ARCS Foundation Scholar Award 2016-2018

University of California, Irvine EECS Fellowship 2014-2016

MobiHoc 2018: Student Travel Grant Award

SIGCOMM 2017: N2 Women Student Travel Grant Award

SIGCOMM 2017: Student Travel Grant Award

PETS 2017: Student Travel Grant Award

MobiCom 2015: Student Travel Grant Award

University of California, Campuswide Honors Program 2011-2014

Edison Scholarship 2010-2014

PUBLICATIONS

Peer-Reviewed Publications

1. K. Kollnig, [A. Shuba](#), M. V. Kleek, R. Binns, N. Shadbolt, “Goodbye Tracking? Impact of iOS App Tracking Transparency and Privacy Labels,” *to appear in Proceedings of the ACM Conference on Fairness, Accountability, and Transparency (ACM FAccT), 2022*
 - Media coverage: by [The Register](#), [TechCrunch](#), and [Ars Technica](#).
2. K. Kollnig, [A. Shuba](#), R. Binns, M. V. Kleek, N. Shadbolt, “Are iPhones Really Better for Privacy? A Comparative Study of iOS and Android Apps,” *to appear in Proceedings of the Privacy Enhancing Technologies Symposium (PoPETs), 2022*
 - Media coverage: by [The Register](#).
3. R. Trimananda, H. Le, H. Cui, J. Ho, [A. Shuba](#), A. Markopoulou, “OVRSeen: Auditing Network Traffic and Privacy Policies in Oculus VR,” *to appear in Proceedings*

of the 31st USENIX Conference on Security Symposium (SEC), 2022

4. [A. Shuba](#), A. Markopoulou, “NoMoATS: Towards Automatic Detection of Mobile Tracking,” *Proceedings of the Privacy Enhancing Technologies Symposium (PoPETs)*, 2020
5. J. Varmarken, H. Le, [A. Shuba](#), A. Markopoulou, Z. Shafiq, “The TV is Smart and Full of Trackers: Measuring Smart TV Advertising and Tracking,” *Proceedings of the Privacy Enhancing Technologies Symposium (PoPETs)*, 2020
6. [A. Shuba](#), Z. Shafiq, A. Markopoulou, “NoMoAds: Effective and Efficient Cross-App Mobile Ad-Blocking,” *Proceedings of the Privacy Enhancing Technologies Symposium (PoPETs)*, 2018, **The Andreas Pfitzmann Best Student Paper Award**
7. [A. Shuba](#), E. Bakopoulou, A. Markopoulou, “Privacy Leak Classification on Mobile Devices,” *IEEE International Workshop on Signal Processing Advances in Wireless Communications (SPAWC)*, 2018
8. [A. Shuba](#), A. Le, M. Gjoka, J. Varmarken, S. Langhoff, A. Markopoulou, “AntMonitor: Network Traffic Monitoring and Real-Time Prevention of Privacy Leaks in Mobile Devices,” *Proceedings of ACM S3 Workshop on Mobile Computing and Networking*, 2015
9. A. Le, J. Varmarken, S. Langhoff, [A. Shuba](#), M. Gjoka, A. Markopoulou, “AntMonitor: A System for Monitoring from Mobile Devices,” *Proceedings of ACM SIGCOMM Workshop on Crowdsourcing and Crowdsharing of Big Internet Data*, 2015

Demos

10. [A. Shuba](#), A. Markopoulou, “Demo: AntWall - A System for Mobile Adblocking and Privacy Exposure Prevention,” *Proceedings of the 18th ACM International Symposium on Mobile Ad Hoc Networking and Computing*, 2018
11. [A. Shuba](#), A. Le, M. Gjoka, J. Varmarken, S. Langhoff, A. Markopoulou, “Demo: AntMonitor - A System for Mobile Traffic Monitoring and Real-Time Prevention of Privacy Leaks,” *Proceedings of 21st International Conference on Mobile Computing and Networking*, 2015
12. [A. Shuba](#), A. Le, M. Gjoka, J. Varmarken, S. Langhoff, A. Markopoulou, “Demo: AntMonitor - Network Traffic Monitoring and Real-Time Prevention of Privacy Leaks in Mobile Devices,” *Proceedings of ACM S3 Workshop on Mobile Computing and Networking*, 2015, **Best Demo Award**

TEACHING
EXPERIENCE

University of California, Irvine

Guest Lecturer

Spring 2022, Winter 2019

EECS 221/Net Sys 270 - Mobile Data Privacy

Teaching Assistant

Fall 2016, Fall 2017, Spring 2019

EECS 148/CS 132 - Computer Networks

Ikazuchi Dojo

Visiting Instructor

Jun. 2019 – present

Instructor *Dec. 2014 – Dec. 2017*
Assistant Instructor *Sept. 2014 – Dec. 2014*
Leading weekly Aikido classes for groups of various ages and backgrounds. Mentoring students who are preparing for belt testing. Providing private training sessions for individuals wishing to accelerate their development.

Blizzard Entertainment

Visiting Martial Arts Instructor *May 2015 – Jun. 2019*
Leading Aikido training courses for groups of gaming industry professionals.

Anteater Recreation Center

Martial Arts Instructor *Sept. 2014 – Jun. 2016*
Designing and leading 10-week Aikido courses for groups of 10-35 university students.

Newport Harbor High School

Tutor *Sept. 2010 – March 2012*
Tutored groups of 20-40 students of different backgrounds in advanced math and physics.

Discovery Science Center

Presenter *July 2011 – Sept. 2011*
Explained scientific concepts to children in a fun and engaging way.

INVITED TALKS

1. “Mobile Data Transparency and Control,” Google Privacy Group, Sunnyvale, CA, Oct. 2019
2. “NoMoAds: Effective and Efficient Cross-App Mobile Ad-Blocking,” Ad Blocker Dev Summit 2019, San Francisco, CA, Oct. 2018

COMPUTING SKILLS

Programming Languages: Java, Python, C/C++, SQL, JavaScript
Miscellaneous: socket programming and network protocols (TCP/IP, DNS, HTTP), machine learning (scikit-learn, Weka)

PROFESSIONAL ACTIVITIES

Technical Program Committee Member: PETS 2022, MADWeb 2022, USENIX 2023
External Reviewer: PETS 2019, IEEE/ACM ToN 2018
Student Volunteer: ACM CoNEXT 2016, PETS 2017, N2 Women Workshop 2017, SIGMETRICS 2018

REFERENCES

Available upon request