

# Anastasia Shuba

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PERSONAL INFORMATION	Website: <a href="https://nshuba.github.io/">https://nshuba.github.io/</a>	E-mail: <a href="mailto:ashuba22@gmail.com">ashuba22@gmail.com</a>
INTERESTS	Mobile and IoT: Security and Privacy, Data Analytics, Machine Learning, Privacy Policies	
EDUCATION	<b>University of California, Irvine</b>	
	<i>Ph.D in Computer Engineering</i>	<i>Sept. 2014 – Jun. 2019</i>
	<ul style="list-style-type: none"><li>• Thesis: “Mobile Data Transparency and Control”</li><li>• Advisor: Athina Markopoulou</li><li>• GPA: 3.7</li></ul>	
	<i>M.S. in Computer Engineering</i>	<i>Sept. 2014 – Jun. 2016</i>
	<ul style="list-style-type: none"><li>• Thesis: “AntMonitor: A System for Mobile Network Monitoring”</li><li>• Advisor: Athina Markopoulou</li><li>• GPA: 3.7</li></ul>	
	<i>B.S. in Computer Engineering</i>	<i>Sept. 2010 – Jun. 2014</i>
	<ul style="list-style-type: none"><li>• Thesis: “Home Automation with Android”</li><li>• Advisor: Kwei-Jay Lin</li><li>• GPA: 3.8</li><li>• Graduated with Cum Laude</li></ul>	
WORK EXPERIENCE	<b>Broadcom Software</b>	
	<i>R&amp;D Engineer</i>	<i>Aug. 2019 – present</i>
	Designing and building features for a cross-platform (Windows, OS X, and Linux) network intrusion detection engine that is part of Symantec Endpoint Protection.	
	<b>Symantec Corporation</b>	
	<i>Software Engineering Intern</i>	<i>Jun. 2018 – Sept. 2018</i>
	Worked on network security solutions for Android and iOS.	
	<b>Metronome Software</b>	
	<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.	

	<b>Praxis BioSciences</b> <i>Software Engineering Intern</i> Jun. 2012 – Sept. 2012 Developed medical systems that involved Android devices and microcontrollers.
RESEARCH EXPERIENCE	<b>University of California, Irvine</b> <i>Graduate Research Assistant</i> 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.  <i>Undergraduate Research Assistant</i> Sept. 2013 – Jun. 2014 Advisor: Kwei-Jay Lin Designed and implemented an Android app used to control a home automation system.  <i>Undergraduate Research Assistant</i> 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	<b>Peer-Reviewed Publications</b> <ol style="list-style-type: none"> <li>1. K. Kollnig, <a href="#">A. Shuba</a>, R. Binns, M. V. Kleek, N. Shadbolt, “Are iPhones Really Better for Privacy? A Comparative Study of iOS and Android Apps,” <i>to appear in Proceedings of the Privacy Enhancing Technologies Symposium (PoPETs)</i>, 2022</li> <li>2. R. Trimananda, H. Le, H. Cui, J. Ho, <a href="#">A. Shuba</a>, A. Markopoulou, “OVRSeen: Auditing Network Traffic and Privacy Policies in Oculus VR,” <i>to appear in Proceedings of the 31st USENIX Conference on Security Symposium (SEC)</i>, 2022</li> </ol>

3. A. Shuba, A. Markopoulou, “NoMoATS: Towards Automatic Detection of Mobile Tracking,” *Proceedings of the Privacy Enhancing Technologies Symposium (PoPETs)*, 2020
4. 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
5. 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 Pfizmann Best Student Paper Award**
6. A. Shuba, E. Bakopoulou, A. Markopoulou, “Privacy Leak Classification on Mobile Devices,” *IEEE International Workshop on Signal Processing Advances in Wireless Communications (SPAWC)*, 2018
7. 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
8. 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 Crowdfunding of Big Internet Data*, 2015

#### Demos

9. 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
10. 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
11. 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

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.

**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

**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