

Ariana Mirian

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Curriculum Vitae

I am a third year Ph.D student at the University of California - San Diego in the Computer Science and Engineering Department. My interests are broadly in security and privacy, with a focus on using empirical based measurement to understand different user populations and their interactions with security mechanisms. My past work while I was at the University of Michigan was focused on network security.

I am advised by Stefan Savage and Geoff Voelker and am part of both the Systems and Networking (Sysnet) group and Crypto and Security (CryptoSec) at UC San Diego.

Education

University of California - San Diego

Jacobs School of Engineering
3rd Year Ph.D Student, Computer Science and Engineering

Sep 2016 - Present

University of Michigan – Ann Arbor

College of Engineering
Bachelor of Science in Engineering, Computer Science and Engineering

May 2016

Conference Publications

HTTPS Adoption in the Longtail

[Ariana Mirian](#), Chris Thompson, Geoffrey M. Voelker, Stefan Savage, Adrienne Porter Felt
In Submission, The Web Conference, San Francisco, United States, May 2019

Hack for Hire: Exploring the Emerging Market for Account Hijacking

[Ariana Mirian](#), Joe DeBlasio, Stefan Savage, Geoffrey M. Voelker, Kurt Thomas
In Submission, The Web Conference, San Francisco, United States, May 2019

Web Feature Deprecation: A Case Study for Chrome

[Ariana Mirian](#), Nikunj Bhagat, Caitlin Sadowski, Adrienne Porter Felt, Stefan Savage, Geoffrey M. Voelker
In Submission, 41st International Conference for Software Engineering, Software Engineering in Practice (ICSE SEIP), Montreal, Canada, May 2019

Security Challenges in an Increasingly Tangled Web

Deepak Kumar, Zane Ma, Zakir Durumeric, [Ariana Mirian](#), Joshua Mason, J. Alex Halderman, Michael Bailey
26th International World Wide Web Conference, Perth, Australia, April 2017

An Internet-Wide View of ICS Devices

[Ariana Mirian](#), Zane Ma, David Adrian, Matthew Tischer, Thasphon Chuenchujit, Tim Yardley, Robin Berthier, Josh Mason, Zakir Durumeric, J. Alex Halderman and Michael Bailey
Privacy, Security and Trust Conference (PST), Auckland, December 2016

A Search Engine Backed by Internet Wide Scanning

Zakir Durumeric, David Adrian, [Ariana Mirian](#), Michael Bailey, J. Alex Halderman
22nd ACM Computer and Communications Security (CCS), Denver, CO, October 2015

Neither Snow Nor Rain Nor MITM...An Empirical Analysis of Mail Delivery Security

Zakir Durumeric, David Adrian, [Ariana Mirian](#), James Kasten, Kurt Thomas, Vijay Eranti, Nicolas Lidzborski, Elie Bursztein, Michael Bailey, J. Alex Halderman
15th ACM Internet Measurement Conference (IMC'15), Tokyo, October 2015
IRTF Applied Networking Research Prize (ANRP)

Work Experience

Google, Chrome Metrics

Summer 2018

Mentors: Nik Bhagat, Caitlin Sadowski, Adrienne Porter Felt

- Categorized past web feature deprecations to identify four main categories of deprecation
- Analyzed and determined different thresholds of deprecation for the individual categories
- Created an internal tool to assist with data-driven deprecation decisions

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Google, Chrome Security Summer 2017

Mentors: Adrienne Porter Felt, Emily Stark

- Analyzed less popular sites to determine blockers for HTTPS and created pipeline for analysis
- Identified targets for HTTPS outreach
- Modified Pshtt (open source) to be more robust for internal and external use

Researcher 2014 – 2016

Advisor: J. Alex Halderman

- Used measurement to analyze various network ecosystems
- Performed Internet-wide studies on email security and ICS device security
- Maintained ZMap (zmap.io) and Censys (censys.io)
- Published several papers on completed work

RetailMeNot Summer 2014

Product Management Intern

- Designed a web responsive application that recommends gifts for a shopper
- Worked with and managed a team of interns from various, diverse schools over a 3 months
- Operated as product lead, technical lead, marketing, and as main point of contact to company

Stryker Engineering Challenge Fall 2013

Robot Programmer and Designer

- Designed, built, and programmed a robot in C within 24 hours with three other engineers
- Received 3rd place and Sportsmanship award for excellence in working as a team

MHacks Hackathon Fall 2013

Hacker: Front End Development, Backbone & HTML/CSS/Javascript Coder

- Created a website for startups with other engineers
- Learned how to collaborate with others from different backgrounds and solve problems quickly

Technische Universität Berlin Summer 2013

Team Leader

- Organized and worked with Engineers in to program m3PI Polulu Robot
- Programmed robot in C++ to mimic Amazon Kiva Robots and to implement Extremum Seeking Controller

Teaching

ENGR 110 DA 2015

Staff for Engr 110: The Engineering Profession

- Planned and executed discussion for introductory to engineering course (aimed towards incoming, undeclared freshmen in the college of engineering) and also graded assignments
- Worked with College of Engineering staff in revamping of course

Big Data Science Camp Summer 2015

Teaching Assistant

- Facilitated camp that focused on teaching humanity PhD students the basics of SQL and python for use in data analysis
- Worked one-on-one and in group settings with students of different skill levels and personalities

Women in Science and Engineering Residential Program 2013-2014

Study Group Facilitator

- Planned and executed weekly study group for Math 156 (Honors Applied Calculus 2) and Math 255 (Honors Applied Calculus 3)

Leadership & Activities

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CSE Diversity, Equity, and Inclusion Committee, UC San Diego

2018-Present

Co-lead and Member, 2018-2019

- Created CSE committee focused on Diversity, Equity, and Inclusion initiatives
 - comprised of staff, faculty, and students; currently at > 80 people on the committee
 - created steering committee with 8 people as leads to facilitate better coordination
- Co-ordinated and empowered launch of several initiatives, such as
 - creation of student committee for PhD admissions to CSE department
 - recruiting efforts at conferences such as GHC, Tapia, and oSTEM
 - internal focus groups, to determine culture issues in different populations
 - launch of DEI lecture series

Graduate Women in Computing (GradWIC), UC San Diego

2016-Present

President, 2017-2019

- Acted as main point of contact for industries, organizations, companies, and the University
- Planned strategy for upcoming year for goals and measurements of success
- Launched Mentorship program in Fall 2017
- Increased membership body and number of events hosted

General Member 2016-present

- Organized various events around diversity issues within the department
- Launched a mentorship program for the graduate community

Society of Women Engineers, University of Michigan

2012-2016

President, 2015-2016

- Acted as main point of contact for industries, organizations, companies, and the University
- Provided support for 35 leader corp members and also 400+ general members
- Planned and organized 2015 Fall Career Fair, largest career fair on campus

Strategic Planning Director and Marketing and Membership Director, 2014- 2015

- Devised methods to keep SWE growing and changing positively
- Introduced and implemented the marketing and membership committee

Participant in SWE Overseas Walchandnagar, India Trip, Summer 2014

- Organized day of computer science activities to teach to students
- Immersed in culture, traditions, and changes in India

Middle School Outreach Officer, 2013 - 2014

- Organized 4 events per semester, which included 20-100 participants
- Planned and organized 2013 Fall Career Fair, largest career fair on campus
- Organized GREAT Day 2014, with 260 participants attending

Women in Science and Engineering Residential Program, University of Michigan

2012-2014

Study Group Facilitator, 2013

Peer Mentor, 2013

- Facilitated a 2 hours study group every week, helping students with content from class
- Assisted in transition from high school to college for a group of freshman

Persian Student Association, University of Michigan

2012-2016

Member

- Increased awareness of the Persian culture and its attributes
- Performer in the annual New Year's show

College of Engineering Honor Council, University of Michigan

2013 - 2014

Council Member

- Investigated Honor Code Violations every week for College of Engineering
- Presented findings at a weekly hearing with other council members

Awards and Recognitions

UCSD GSA Outstanding Community Leader Award

2018

For significant contributions to the CSE department via various initiatives and roles

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| UCSD CSE Department Award for Contributions to Diversity
<i>For significant contributions to the department via Diversity initiatives</i> | 2017 |
| Duo Security Women in Security (Academic Sector) Award Nominee
<i>For significant contributions to the fields of information security and privacy</i> | 2015 |
| Willie Hobbs Moore Trailblazer Award (University of Michigan)
<i>For dedication to outstanding outreach programs within the University and also for dedication to improvement within the Society of Women Engineers at the University of Michigan</i> | 2015 |
| Aspire, Advance, Achieve Scholarship (Society of Women Engineers)
<i>For showing constant motivation and dedication and making vital contributions to the section</i> | 2015 |
| Dow Chemical Scholarship (Society of Women Engineers)
<i>For outstanding leadership and academics</i> | 2014 |
| Outstanding SWE leader Scholarship (Society of Women Engineers)
<i>For showing outstanding leadership and mentorship within the section</i> | 2014 |
| Outstanding Freshmen Scholarship (Society of Women Engineers)
<i>For outstanding work in the section as a freshmen</i> | 2013 |