

# Ariana Mirian

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## Curriculum Vitae

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I am a second 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 empirical based measurement and usability. 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 and the Center for Evidence-based Security research (CESR).

## Education

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**University of California - San Diego** **Sep 2016 - Present**  
Jacobs School of Engineering  
2nd Year Ph.D Student, Computer Science and Engineering

**University of Michigan – Ann Arbor** **May 2016**  
College of Engineering  
Bachelor of Science in Engineering, Computer Science and Engineering

## Conference Publications

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### Security Challenges in an Increasingly Tangled Web

Deepak Kumar, Zane Ma, Zakir Durumeric, [Ariana Mirian](#), Joshua Mason, J. Alex Halderman, Michael Bailey  
*To Appear: 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  
*22<sup>nd</sup> 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  
*15<sup>th</sup> ACM Internet Measurement Conference (IMC'15), Tokyo, October 2015*  
*IRTF Applied Networking Research Prize (ANRP)*

## Work Experience

**Google, Chrome Security** **Summer 2017**  
*Mentor: Adrienne Porter Felt*

- 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
- Added code to Lighthouse (open source) that helps developers identify mixed-content on sites

**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)

**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

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## **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 3<sup>rd</sup> 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**

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### **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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### **Graduate Women in Computing (GradWIC), UC San Diego**

**2016-2018**

*President, 2017-2018*

- Acted as main point of contact for industries, organizations, companies, and the University
- Collaborated with the department on several diversity related initiatives
- Planned strategy for upcoming year for goals and measurements of success
- Launched Mentorship program in Fall 2017

*General Member 2016-present*

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

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<b>Society of Women Engineers, University of Michigan</b> <i>President, 2015-2016</i>	<b>2012-2016</b>
<ul style="list-style-type: none"><li>• Acted as main point of contact for industries, organizations, companies, and the University</li><li>• Provided support for 35 leader corp members and also 400+ general members</li><li>• Planned and organized 2015 Fall Career Fair, largest career fair on campus</li></ul>	
<i>Strategic Planning Director and Marketing and Membership Director, 2014- 2015</i>	
<ul style="list-style-type: none"><li>• Devised methods to keep SWE growing and changing positively</li><li>• Introduced and implemented the marketing and membership committee</li></ul>	
<i>Participant in SWE Overseas Walchandnagar, India Trip, Summer 2014</i>	
<ul style="list-style-type: none"><li>• Organized day of computer science activities to teach to students</li><li>• Immersed in culture, traditions, and changes in India</li></ul>	
<i>Middle School Outreach Officer, 2013 - 2014</i>	
<ul style="list-style-type: none"><li>• Organized 4 events per semester, which included 20-100 participants</li><li>• Planned and organized 2013 Fall Career Fair, largest career fair on campus</li><li>• Organized GREAT Day 2014, with 260 participants attending</li></ul>	

<b>Women in Science and Engineering Residential Program, University of Michigan</b> <i>Study Group Facilitator, 2013</i> <i>Peer Mentor, 2013</i>	<b>2012-2014</b>
<ul style="list-style-type: none"><li>• Facilitated a 2 hours study group every week, helping students with content from class</li><li>• Assisted in transition from high school to college for a group of freshman</li></ul>	

<b>Persian Student Association, University of Michigan</b> <i>Member</i>	<b>2012-2016</b>
<ul style="list-style-type: none"><li>• Increased awareness of the Persian culture and its attributes</li><li>• Performer in the annual New Year's show</li></ul>	

<b>College of Engineering Honor Council, University of Michigan</b> <i>Council Member</i>	<b>2013 - 2014</b>
<ul style="list-style-type: none"><li>• Investigated Honor Code Violations every week for College of Engineering</li><li>• Presented findings at a weekly hearing with other council members</li></ul>	

## Awards and Recognitions

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