

Steven Sprecher

Ph.D. Student
Computer Science
Northeastern University

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RESEARCH OVERVIEW

My research reflects my passion for security and privacy, especially that of users that may not know any better. My interests include, but are certainly not limited to: censorship measurement and circumvention, network measurement, network and web security, cryptography, usable security and broadly systems security.

EDUCATION

Northeastern University, Boston, MA
Ph.D. Computer Science, Expected April 2024
• Advised by Wil Robertson and Engin Kirda

University of Michigan, Ann Arbor, MI
Master of Science, Computer Science, May 2019
• Overall GPA: 3.73/4.0

Bachelor of Science, Computer Science, May 2017
• Security Concentration
• Stephen M. Ross School of Business, Business Minor
• Overall GPA: 3.44/4.0
• Teaching Assistant, Introduction to Computer Security (2016-2017)

RESEARCH

Decentralized Control: A Case Study of Russia
Reethika Ramesh, Ram Sundara Raman, Matthew Bernhard, Victor Ongkowijaya, Leonid Evdokimov, Anne Edmundson, Steven Sprecher, Muhammad Ikram, Roya Ensafi
(NDSS'20) , February 2020

Third Party Data Exfiltration On the Web
First Author, Advised by Wil Robertson & Engin Kirda
(In Progress) , January 2020

The Security and Privacy Impacts of Redirects
First Author, Advised by Drew Springall, Roya Ensafi, & J. Alex Halderman
(In Progress) , January 2020

Beyond Acceptable Advertisement: Better Understanding Blocking Extensions
Second Author, Advised by J. Alex Halderman
(Under Submission) , January 2020

EXPERIENCE

UNIVERSITY OF MICHIGAN - Ann Arbor, MI 2017 Sept - Present
Head Graduate Student Instructor - Introduction to Computer Security

- Lead and mentor a team of ten teaching assistants, comprised of both undergraduate and graduate students in the operation of a class with over 350 undergraduate students
- Collaborate with team and course instructors to draft and revise assignments and a two-hour final exam covering security in cryptography, web, networking, applications, and forensics
- Design and teach a weekly discussion curriculum covering course material, including real world applications that serve as motivating examples for course concepts
- Host office hours both scheduled and one on one by appointment to help students grasp concepts, to aid with the assignments of the course, and to mentor interested students

UNITED STATES DEPARTMENT OF DEFENSE
Cooperative Education Intern - Research

2016 May-September

- Research was classified

UNITED STATES DEPARTMENT OF DEFENSE
Cooperative Education Intern - Malware

2015 Sept-December

- Planned and organized all meetings as the Cooperative Education Senior Ambassador and brought in presenters from all over the organization to help fellow students pick work tours
- Assembled a knowledge base on the windows environment, assembly code, python, various malware analysis tools, and virtual machines in order to better understand malicious threats
- Reverse engineered and analyzed malicious code both dynamically and statically in order to understand how to defend against new and advanced threats to national security
- Demonstrated the insight and technical ability needed to become an intermediate malware analyst able to work on pieces of malware in the production chain for clients

UNITED STATES DEPARTMENT OF DEFENSE
Cooperative Education Intern - Web

2015 January-April

- Designed and Implemented all core functionality, user interfaces, and REST layer communication to the database for a new qualitative information capturing product
- Lead demonstration meetings to potential clients in order to secure funding for completion of a specific product, which will roll out to 30,000 people enterprise-wide
- Utilized web and software development practices such as code revision, merging, branching, building and deploying to seamlessly integrate with other team members' work

SKILLS

Python, C++, LaTeX, JavaScript, X86 Assembly, Java, HTML/CSS, JQuery, Virtual Box, Docker, VMware, Excel, Some experience: Golang, Flask, Spring MVC, Spring Data / MongoDB, Maven, Apache Tomcat

AWARDS

- Nominated for Distinguished Leadership Award (2017)
- TS/SCI with FSP Security Clearance (2015)