

# Kelsey R. Fulton

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## Education:

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### University of Maryland

Ph.D., Computer Science, GPA: 3.806  
Advised by Michelle Mazurek

*Selected Coursework:* Program Analysis and Understanding, Computer and Network Security, Human Factors in Privacy and Security, Distributed Algorithms and Verification, Interactive Data Analytics, Empirical Methods, Interactive Technologies, and Computational Linguistics 1

College Park, MD

2017-Present

### University of Maryland

M.S., Computer Science, GPA: 3.806  
Advised by Michelle Mazurek

*Selected Coursework:* Program Analysis and Understanding, Computer and Network Security, Human Factors in Privacy and Security, Distributed Algorithms and Verification, Interactive Data Analytics, Empirical Methods, Interactive Technologies, and Computational Linguistics 1

College Park, MD

2017-2019

### Millersville University of Pennsylvania

B.S. Computer Science and Mathematics, GPA: 3.91  
*Selected Coursework:* Artificial Intelligence, Parallel Programming, Data Mining, Transformational Geometry, Number Theory, Mathematical Statistics 2

Millersville, PA

2014-2017

## Awards and Honors:

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The National Society of Leadership and Success' Presidential Award (Awarded for completion of training and induction into the society). December 2016

Millersville University's Dean List. Dec. 2014- May 2017

Millersville University Student of Academic Distinction (Given for my performance in my numerical analysis course). May 2016

## Publications:

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Papers:

### **Understanding Mistakes Developers Make: Qualitative Analysis from Build It, Break It, Fix It**

Daniel Votipka, Kelsey R. Fulton, James Parker, Matthew Hou, Michelle L. Mazurek, and Michael Hicks. In Usenix Security 2020. August 2020.

### **The Effect of Entertainment Media on Mental Models of Computer Security**

Kelsey R. Fulton, Rebecca Gelles, Alexandra McKay, Richard Roberts, Yasmin Abdi, and Michelle L. Mazurek. In SOUPS 2019: Symposium on Usable Privacy and Security. August 2019.

Posters:

### **Understanding Mistakes Developers Make: Qualitative Analysis from Build It, Break It, Fix It**

Daniel Votipka, Kelsey R. Fulton, James Parker, Matthew Hou, Michelle L. Mazurek, and Michael Hicks. In SOUPS 2019: Symposium on Usable Privacy and Security. August 2019.

**Detecting IoT Malware with Power Measurements**

Rebecca Gelles, Kelsey Fulton, Rachel Walter, and Dave Levin. In IMC 2018: Internet Measurement Conference. November 2018.

**Presentations:**

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Conferences:

**Unwinding the Runtime Stack: Application Runtime Analysis for Anomaly Detection Research.** Pennsylvania State System of Higher Education Undergraduate Research Conference in Science, Technology, Engineering, and Mathematics 2016.

Workshops:

**Studying the Costs and Benefits of Rust, Compared to C.** WSIW 2019: Workshop on Security Information Workers.

Invited Talks:

**The Effect of Entertainment Media on Mental Models of Computer Security.** DC-APS Fall 2019.

**Understanding Mistakes Developers Make: Qualitative Analysis from Build It, Break It, Fix It.** DC-APS Winter 2019.

**The Effect of Entertainment Media of People's Mental Models of Computer Security.** UMD HCIL Annual Symposium 2019.

**Improving Security Automation with System Calls Sites Monitoring.** 2017 NIST SURF Colloquium.

**Unwinding the Runtime Stack: Application Runtime Analysis for Anomaly Detection Research.** Oct. 2016 Millersville University of Pennsylvania Tech Talk.

**Unwinding the Runtime Stack: Application Runtime Analysis for Anomaly Detection Research.** 2016 NIST SURF Colloquium.

**Teaching and Mentorship:**

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Adjunct Professor:

**CMSC 388N - Build it, Break it, Fix it: Competing to Secure Software.** Winter 2020. Hands-on course where students competed to build secure software and find vulnerabilities in other teams' code.

Teaching Assistantship:

**CMSC 412 - Operating Systems.** Spring 2018. Examined fundamental principals of operating systems. Topics included processes, threads, scheduling, synchronization, memory management, file system interface and implementation, disk and storage systems, security, and networking

**CMSC 216 - Introduction to Computer Systems.** Fall 2017. Examined an introduction to how programs run on hardware. Topics broadly included how different programming constructs work a low level.

Undergraduate Students:

**Desiree Abrokwa.** Summer 2020 - Present. Helped qualitatively analyze the data from the BIBIFI winter course data.

**Anna Chan.** Spring 2020 - Present. Helped transcribe interviews of participants exploring the adoption of secure programming languages as well as analyze the interview transcripts.

**Yasmin Abdi.** Fall 2018 - Spring 2019. Helped conduct and transcribe interviews of participants surveying how the entertainment media affect people's mental models of computer security, helped fill out and submit an IRB application, helped conduct in-person programming sessions to understand the cost and benefits of using Rust in place of C

### **Academic Service:**

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Reviewing for Conferences and Journals:

**SOUPS Poster Session**, 2020

**CHI Late Breaking Works**, 2020

**NDSS**, 2020 (subreview for Michelle Mazurek)

**SOUPS Poster Session**, 2019

**NDSS**, 2019 (subreview for Michelle Mazurek)

### **Employment:**

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<b>University of Maryland</b> Research Assistant	<b>August 2018 - Present</b>
<b>Federal Trade Commission</b> Pathways Student Researcher	<b>May 2020 - August 2020</b>
<b>National Institute of Standards and Technology</b> Pathways Student Researcher	<b>August 2017 - May 2020</b>
<b>University of Maryland</b> Teaching Assistant	<b>August 2017 - May 2018</b>
<b>National Institute of Standards and Technology</b> SURF Student	<b>May 2017 - August 2017</b>
<b>Sheetz</b> Salesperson	<b>June 2015 - May 2018</b>
<b>National Institute of Standards and Technology</b> SURF Student	<b>May 2016 - August 2016</b>
<b>Millersville University's Computer Science Department</b> Grader	<b>August 2015 - May 2016</b>