

## EDUCATION

### New York University

M.S. Computer Science 2020

Cumulative GPA: 3.9

### University of Michigan

B.S. Computer Science 2018

B.S. Women's Studies 2018

## RELEVANT COURSEWORK

### Master's Coursework

Design and Analysis of Algorithms I • Computer Architecture I • Information Visualization • Penetration Testing and Vulnerability Analysis • Artificial Intelligence I • Computer Networking • Introduction to Offensive Security • Distributed Systems

### Undergraduate Coursework

Data Structures and Algorithms • Introduction to Computer Organization • Foundations of Computer Science • Introduction to Computer Security • Computing for Computer Scientists • Mobile App Development for Entrepreneurs • Introduction to Cryptography • Introduction to Operating Systems • Database Management Systems

## EMPLOYMENT

### CRITICAL SKILLS MASTER'S PROGRAM FELLOW

Sandia National Laboratories

Albuquerque, NM  
June 2018 to Current

- An employee of the Experimental Cyber Initiatives department which is responsible for advancing R&D in the area of cyber modeling and simulation with applications in areas including high-consequence networks, high-value networks, embedded systems, and control systems.
- Created a framework within our comprehensive in-house ICS/SCADA modeling and simulation platform that supported generic DAQ capability (i.e. HITL).

### RESEARCH & DEVELOPMENT INTERN

Sandia National Laboratories

Albuquerque, NM  
May 2017 to May 2018

- Integrated minimega's protonuke into our in-house orchestration tool used for managing the creation, configuration, and deployment of modeling and simulation environments.
- Developed an experimental cyber range, with a lead on the creation of honeypots within that cyber range.
- Created a drone simulation program that integrated features of cyber disruption.
- Upgraded our automated ELK dashboard deployment and monitoring within our comprehensive in-house ICS/SCADA modeling and simulation platform which is responsible for capturing the cyber/physical impacts of targeted cyber events on critical infrastructure and control systems.

### INSTRUCTIONAL AIDE FOR INTRODUCTION TO COMPUTER SECURITY

University of Michigan's Computer Science Department

Ann Arbor, MI  
Sept. 2017 to Apr. 2018

- Held a weekly two-hour discussion section in addition to office hours.
- Answered curriculum-related questions on Piazza.
- Assisted in curriculum/project development.
- Head of Exam Logistics: Coordinated writing and testing of the final exam for the class. Organized testing locations for 300+ students, as well as directed and informed other staff of their duties as exam overseers and graders.

### INSTRUCTIONAL AIDE FOR PROGRAMMING AND INTRODUCTORY DATA STRUCTURES

University of Michigan's Computer Science Department

Ann Arbor, MI  
Sept. 2016 to Apr. 2017

- Held a weekly two-hour discussion section in addition to office hours.
- Answered curriculum-related questions on Piazza.
- Assisted in curriculum/project development.
- Head of Cheat Checking: Utilized Stanford's MOSS (Measure of Software Similarity) to detect plagiarism in student projects. Wrote additional scripts and documentation to supplement MOSS's capabilities in order to suit the needs of a 950+ student class.
- Head of Exam Logistics: Coordinated writing and testing of midterm and final exams for the class. Organized testing locations for 950+ students, as well as directed and informed other staff of their duties as exam overseers and graders.

## EMPLOYMENT

### GRADER FOR PROGRAMMING AND INTRODUCTORY DATA STRUCTURES

University of Michigan's Computer Science Department

Ann Arbor, MI  
May 2016 to Aug. 2016

- Graded correctness in students' weekly lab work.
- Graded and gave feedback on students' coding style on course projects.
- Assisted in course improvement in regards to lab work.

### RESEARCH ASSISTANT

University of Michigan's Sociology Department

Ann Arbor, MI  
Jan. 2016 to Dec. 2016

- Middle School Sexuality: Subjective Understandings and Interactional Classroom Processes
- Researched the role of social media websites (blogs, forums, online communities) as a source of informal sex education for middle school adolescents.

### COMPUTER OPERATOR

University of Michigan's Medical School Information Services

Ann Arbor, MI  
Sept. 2015 to Aug. 2016

## SKILLS

**PROGRAMMING:** Bash, C, C++, CSS, Git, Go, HTML, Java, Javascript, LaTeX, Oracle SQL, Python, SCADA Systems

**LANGUAGES:** English, Macedonian (bilingual), French (conversational)

## AWARDS

RSAC SECURITY SCHOLAR · RSA Conference

Mar. 2019

STUDENT SCHOLARSHIP · Black Hat USA 2019

Aug. 2019

## PUBLICATIONS & WORKSHOPS

**COMPACT: EVALUATING THE FEASIBILITY OF AUTONOMOUS VEHICLE CONTRACTS**

J. Erickson, S. Chen, M. Savich, S. Hu and Z. M. Mao  
IEEE Vehicular Networking Conference (VNC), December 2018

**COMPACT: EXPLORING THE FEASIBILITY OF AUTONOMOUS VEHICLE CONTRACTS**

J. Erickson, M. Savich, S. Chen, M. Pese, S. Hu and Z. M. Mao  
escar USA, June 2018