

CLAUDIA MONCALIANO

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EDUCATION

The Johns Hopkins University

Master of Science in Security Informatics, Information Security Institute

Baltimore, MD

Expected Dec 2020

Bachelor of Science in Computer Science, Minor in Entrepreneurship & Management, Dean's List

May 2020

Coursework: Security & Privacy, Intrusion Detection, Cryptography, Vulnerability Analysis, Mobile & Wireless Security, Ethical Hacking, Moral & Legal Privacy, Implementing Effective Information Security Programs, Compilers & Interpreters, Operating Systems, Data Science

EXPERIENCE

Qualcomm, Inc.

Security Engineering Intern · Remote

May 2020 – Aug 2020

- *Redesigned* software for Product Security Initiatives by improving *pattern recognition* software to identify and trace bugs in the QCT codebase and *model threats* across thousands of *security reviews* to prevent vulnerable code shipment [C, C++, Python, AFL]
- Developed improvements for algorithms that significantly *enhanced accuracy*, functionality, and usage of bug tracking software
- Performed research on new *fuzzing* techniques to *design* and integrate new *vulnerability discovery and assessment*
- Presented new *project initiatives* at the VP level and collaborated across teams and stakeholders

Multimedia Stability Software Intern · San Diego, CA

June 2019 – Aug 2019

- *Designed and built* a multi-client to single server communication system and *smart selection* full-stack test bed on the Application Platform Testing Team; Enhanced the quality and quantitative capability of mobile device stress testing [RPyC, MongoDB, Flask]
- Created a new company-wide speaker series to build a stronger community for interns and employees, **Awarded QualStar**

Software Engineering Intern · San Diego, CA

June 2018 – Aug 2018

- Built an integrated *auto-merge tool* on the Boot Loader (DDR) team to *improve efficiency* of chip set development [Python, XML]
- Simplified cross-organizational system integration and automated testing of *critical firmware* for engineers company-wide

Johns Hopkins | Course Assistant · Baltimore, MD

Aug 2019 – May 2020

- Human-Robot Interaction: *led team project advisement*, course administration, grading, and office hours
- Bootcamp MATLAB: served as a grader for the fully online course, provided *feedback and support on complex projects*
- Java Programming: *instructed 60 students* in weekly *active learning* sections, held comprehensive office hours, graded assignments

Johns Hopkins Information Technology | JaySquad Full Stack Developer · Baltimore, MD

Mar 2018 – Jan 2020

- Part of an agile team selected to enhance JHU's Student Information System, used by over *10,000 students* university-wide
- *Deployed a full redesign* with a modern SQL/C#/Vue.js stack with back-end enhancements [VS Code, JIRA]

RESEARCH

Security & Privacy Applied Research (SPAR) Lab | Researcher · Baltimore, MD

Jan 2019 – Present

- Tackling wireless connection *security and privacy risks* across IEEE 802.11 networks by building an open-source framework
- Designing a wireless data processing kit to provide *discovery, fingerprinting, and profiling of IoT devices* [Scapy, pyshark, aircrack]
- Implementing traffic capture, analysis, active traffic decryption, location mapping, and data labeling using reconnaissance techniques

Intuitive Computing Lab | Human-Robot Interaction Researcher · Baltimore, MD

Jan 2019 – May 2019

- Human-robot interaction research focused on improving *personalized learning* techniques in *autonomous robot* tutors [ROS, Watson]
- *Developed* a four-part coaching program on a Maki robot to test *trustworthiness* and tutor-likeness levels among elementary students

FIU Cyber-Physical Systems Security Lab, NSF | Undergraduate Researcher · Miami, FL

June 2017 – Jan 2018

- Built an *anomaly detecting network security system*, including a custom Python API at Florida International University (FIU)
- *Classified IoT network traffic* using a software-defined network and *machine learning* (SVM) [Mininet, ONOS, MSSQL, R]
- **Awarded 2nd Place at Carnegie Mellon's OurCS Research Conference; Ignite Talk at Qualcomm Student Conference**

EXTRACURRICULARS

ACM-W, Women in Computer Science **Chair**

JHU Business Plan 3x Competitor, **Second Place Winner**

ACM, Association of Computing Machinery **System Admin**

Women Unite Over CTF, **Third Place Winner**

TECHNOOchicas **Ambassador**

Grace Hopper '19 **Scholar**

Skills: Python · C/C++ · Java · Shell · Assembly · git · Wireshark · Linux · Android · TCP/IP · Pen Testing · Project Management

Languages: English (Fluent), Spanish (Fluent), French (Proficient)