

CLAUDIA MONCALIANO

GHC 2019 Scholar

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EDUCATION

The Johns Hopkins University

Master of Science in Security Informatics, Information Security Institute

Bachelor of Science in Computer Science, Minor in Entrepreneurship & Management

Baltimore, MD

Expected May 2021

Expected May 2020

SKILLS

Python · C/C++ · Java · R · Go · Pen Testing · Shell · ARM · SQL · Veins · Mininet · OMNeT++ · git · Unix · Windows · Linux · Android

Languages: Fluent English, Spanish · Proficient French

EXPERIENCE

Qualcomm, Inc.

Multimedia Stability Software Intern · San Diego, CA

June 2019 – Aug 2019

- Designed and built a multi-client to single server RPC communication and smart selection full-stack system on the Application Platform Testing, Multimedia Stress Team. Significantly enhanced the quality and quantitative capability of device stress testing. [Python, PRyC, MongoDB, Flask, JSON]
- Led the creation of new speaker series, ConversacionesQ, as an active member of Qualcomm's ERG, LatinQ. Awarded QualStar as recognition for my commitment to diversity in tech and building a stronger LatinX community for employees.

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.
- Simplified cross-organizational system integration and automated testing of critical firmware. [Python, XML]

Johns Hopkins University | Course Assistant · Baltimore, MD

Aug 2019 – Present

- Teaching three classroom sections of our active-learning introductory programming course in Java.
- Assisting in curriculum prep, grading, and project advisement to foster basic programming skills and concepts for 150+ students.

Daivu | Start-up · CTO, Co-Founder · 2nd Place at JHU Business Plan Competition

Jan 2018 – Present

- Daivu, the get together app, is designed for flexible event planning to increase small-group accountability using its core UX features that promote community engagement. [React.js, Python, MongoDB]

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

Mar 2018 – Present

- Working in an agile team to enhance JHU's Student Information System, student portal used for course registration, student accounts, and education services university-wide. [Microsoft Visual Studio, JIRA, Java]

Crimson Vista | Software Engineer · Baltimore, MD

Aug 2018 – Dec 2018

- Constructed a V2V simulation to design and develop a more robust and secure protocol for communication between vehicles.
- Development in C on Linux using the Veins Traffic Simulator, SUMO, and OMNeT++.

RESEARCH

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

Jan 2019 – Present

- Tackling wireless connection security and privacy risks across IEEE 802.11 networks by building open-source framework, WDPKR, Wireless Data Processing Kit for Reconnaissance. WDPKR is a suite of tools designed to provide discovery, fingerprinting, and profiling of IoT devices. [Wireshark, Scapy, pyshark, aircrack, Python]
- Implementing traffic capture, analysis, active traffic decryption, location mapping, and data labeling.

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

Jan 2019 – May 2019

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

FIU Cyber-Physical Systems Security Lab | 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).
- Cybersecurity research funded by the National Science Foundation, classified IoT network traffic data using a software-defined network and machine learning algorithms. [Mininet, ONOS, MSSQL Server, R, SQL] Won 2nd Place at Carnegie Mellon's OurCS

PROJECTS

SIMPLE Compiler and Interpreter | Course Project

Feb 2018 – May 2018

- Built a compiler for the SIMPLE programming language to run programs on an ARM machine hosted on a Raspberry Pi.
- Built-in an optional interpreter and implemented complex compile-time optimizations. [Python, ARM Assembly]

AF Predictive Methods | Machine Learning Web Application · Course Project

Feb 2018 – May 2018

- Developed a user-facing Health IT web app that queries MIMIC data set, presenting Atrial Fibrillation (AF) data to patients.
- Built a machine learning model to help doctors predict risk of AF based on comorbidities, cleaned and visualized data.

Poly-Glove | ASL Tactile Translator · Awarded Best Overall Hack at Q Hacks

Jan 2018

- Arduino-based glove, translates American Sign Language into English text using hand forming flex-sensors. [C, Arduino]

EXTRACURRICULARS

TECHNOLOchicas Ambassador | ACM-W, Women in Computer Science Chair | ACM, Association of Computing Machinery Sys Admin |

Painting the World Organization Founder | Society for Hispanic Professional Engineers