CLAUDIA MONCALIANO

EDUCATION

The Johns Hopkins University — Baltimore, MD
Information Security Institute
Master of Science in Security Informatics — May 2021

Whiting School of Engineering
Bachelor of Science in Computer Science — May 2020
Minor in Entrepreneurship & Management

SKILLS

Programming: Python · C · C++ · Java · R · Go · PHP · JavaScript · Ruby · XML · Shell · ARM · HTML · CSS · MySQL · MSSQL Server · VirtualBox · VMware · Jupyter · Veins · Mininet · XAMPP · git · Unix · Windows · Linux · Android · OpenCV · Qt
Languages: Fluent English, Spanish · Proficient French

EXPERIENCE

Qualcomm | Software Engineering Intern · San Diego, CA — June 2018 – Aug 2018
- Built an integrated auto-merge tool on the Boot Loader (DDR) team for chip set development under Qualcomm CDMA Tech
- Improved the overall efficiency of the SW, HW design, and verification teams; Simplified cross-organizational system integration and automated testing of critical firmware [Python, XML]

Johns Hopkins Information Technology | JaySquad Full Stack Developer · Baltimore, MD — Mar 2018 – Present
- Collaborate on a team of full stack developers working in agile 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
- Constructing 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++

Malone Center for Engineering in Healthcare | Research Assistant & Software Developer · Baltimore, MD — Jan 2018 – May 2018
- Developed, tested, and enhanced the UI/UX and backend structure of a data-driven software tool enabled by the Translational Informatics Lab that brings valuable clinical data to its users
- Worked in database scripting, web development, and API implementation [PHP, XAMPP, MySQL, Python]

Daivu | Start-up · Co-Founder · **2nd Place at JHU Business Plan Competition** — Jan 2018 – Present
- Competed in the JHU Business Plan Competition with ongoing start-up project, Daivu
- Wrote and presented a full business plan throughout 3 rounds of critical judging and pitched our product, Daivu – the get together app, in the final round against 10+ teams in the Mobile Apps Category

Adelante | Non-Profit Start-up · Web Developer · **3rd Place at JHU Business Plan Competition** — Feb 2017 – May 2017
- Built web platform for social enterprise start-up, Adelante, focused on bringing college-prep and educational content to high school students in South American countries [HTML, CSS]

RESEARCH

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)
- Conducted cybersecurity research funded by the National Science Foundation, classifying IoT network traffic data using a software-defined network and machine learning algorithms [Mininet, ONOS, MSSQL Server, R, SQL]
- Gave an Ignite Talk entitled "IoT Devices & How to Secure Them" based on my research and the future of smart homes at the Qualcomm Student Accelerator Conference, where I was selected from 200+ undergraduates to speak.
- Awarded 2nd Place at Carnegie Mellon University's OurCS Research Conference for poster presentation of my research

Intuitive Computing Lab | Researcher · Baltimore, MD — Jan 2019 – May 2019
- Conducted human-robot interaction research focused on improving personalized learning techniques in robot tutors
- Developed a four-part coaching program on a Maki robot based on motivation and responsiveness factors and tested trustworthiness and tutor-likeness levels among elementary-age students
- Delivered a final paper presenting preliminary pilot study results.

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 | Web Application · Course Project   Feb 2018 – May 2018
- Developed a user-facing Health IT web app that queries MIMIC, 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

SizeUp | Chrome Web Extension · **Awarded .tech Domain Prize at MLH: HopHacks Hackathon Spring 2018**   Feb 2018
- Calculates a 'good fit' probability for online clothing based on a user's body measurements and brand sizing
- [JSON, AJAX, PHP, SASS, SQL] Code: github.com/nataliemartinez/SizeUp

Poly-Glove | ASL Tactile Translator · **Awarded Best Overall Hack at Q Hacks**   Jan 2018
- Arduino-based glove which translates American Sign Language hand motions into English text on screen using hand forming flex-sensors [C, Arduino]

Conserve.me | Hybrid Mobile Application · **Top Ten at MLH: HopHacks Hackathon Fall 2017**   Sept 2017
- Sustainability tracking application, encourages an environmentally conscious lifestyle to its users
- Records user-reported data such as carpooling, water usage, and recycling to track trends in waste and conservation
- [Typescript, PHP, Ionic, Chart.js] Code: github.com/reecewgriffith/Conserve.me

Echo at JHU | Amazon Echo Skill   Oct 2017
- Alexa Skill (Amazon Echo) that helps Johns Hopkins University students find places to eat on and off campus
- [Python, JSON, Alexa Skills Kit] Tutorial, code, and demo: viviantsai.com/echojhu

Hop*eats* | Android Mobile Application · MLH: HopHacks Hackathon Spring 2017   Feb 2017
- Developed an app to provide students with instant access to dining hall menus [Java, Android Studio]
- Simplified the previously difficult process of finding out when their favorite food options were on campus

Gilman Tunnel Lighting Project | Interactive Installation   Sept 2016 – Dec 2016
- Built an interactive installation for the Gilman Tunnel at JHU
- Created a projection that lit up paths as students walked through the tunnel; worked with sensors, cameras, and projectors
- Presented final demo to the Dept. of Electrical & Computer Engineering

CONFERENCES

Qualcomm Student Accelerator Conference | Speaker & Attendee · San Diego, CA   Jan 2018
- Presented an Ignite Talk on IoT security and my research on methods to protect Smart Home networks
- Awarded **Best Overall Hack at Q Hacks** with Arduino-based project, **Poly-Glove**, which translates American Sign Language to text through the use of a flex-sensing glove [C, Arduino]

Carnegie Mellon University OurCS Research Conference | Presenter & Researcher · Pittsburgh, PA   Oct 2017
- Studied properties of Spoken Dialog Systems within IoT devices. Built several Alexa Skills targeting features the Echo lacks.
- **Awarded 2nd Place** for research poster presentation on cybersecurity of IoT devices

EXTRACURRICULARS · SERVICE

TECHNOLOchicas · Ambassador
- Develop outreach to inspire Latinas about opportunities in tech through NCWIT and the Televisa Foundation

ACM-W, Women in Computer Science · Chair
- Organize annual CS Games and Women in CS Mentorship Program
- Lead weekly coding circles, demos, and tech talks aimed at preparing members for a future in computer science

ACM, Association of Computing Machinery · Sys Admin
- Served as system administrator for the JHU chapter
- One of a team of Sys Admins that worked to rebuild and redesign our servers and remount our storage services
- Maintaining communication channels and ACM website

Painting the World Organization · Founder
- Founded non-profit organization Painting the World
- Fundraised to provide tuition and school supplies to a community funded elementary school in Barranquilla, Colombia, helping support over 350 students

Art Brigade · Volunteer | **Society for Hispanic Professional Engineers** · Member | **Hopkins Soc. for Applied Mathematics**

AWARDS

2018 | Facebook 2018 Grace Hopper Scholar

2018 | 2nd Place at JHU Business Plan Competition

2018 | .tech Domain Prize at MLH: HopHacks Hackathon

2018 | Best Overall Hack at Q Hacks, Qualcomm

2017 | Top Ten Hack at MLH: HopHacks Hackathon

2017 | 3rd Place at JHU Business Plan Competition

2017 | 2nd Place at OurCS Research Conference Poster Presentation, Carnegie Mellon University