

WALLACE OCTAVIUS OBEY

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Education

Johns Hopkins University, Baltimore, MD

Masters of Science Computer Engineering (Online Part-Time)

December 2024

University of North Carolina at Charlotte, Charlotte, NC

Bachelor of Science Electrical and Computer Engineering

December 2020

Relevant Classes: Data Structures and Algorithms in C++, Embedded Systems, Digital Signal Processing, Random Processes and Optimum Filtering, Computer Architecture, Operating Systems, Data Communication, Signals and Systems

Relevant Work and Research Experience

Software Engineer, Seagate Technology, Longmont, CO

March 2021 - Present

- Lead the test development for hard drive depopulation feature written in C
- Collaborated with multiple engineering teams for new feature development and test coverage

Embedded Software Engineer Intern, Enventys Partners, Charlotte, NC

Oct 2020 - December 2020

- Assisting with general software and firmware development for ARM based microcontrollers
- Testing circuit board and peripherals for device interfacing

Technology Analyst Intern, American International Group (AIG), Charlotte, NC

June 2020 - August 2020

- Wrote flows for automating replays and notifications for SharePoint lists
- Designed flows for automating intake of penetration testing reports to SharePoint lists

Undergraduate Research Assistant, UNC Charlotte, Charlotte, NC

Oct 2019 - May 2020

- Performed data collection, ran experiments for SLAM systems using a turtle bot
- Collected ros bag files of each experiment and gave to PhD students for analysis

Academic and Personal Projects

Digital Image Processing Library in C++ (Personal Passion Project)

Feb 2022 - Present

- Creating a library for digital image processing in C++ following an OOP approach and testing
- Creating functions for histogram equalization, gray level transformations, Edge detection, and filter algorithms

Traffic Light Simulator, Embedded Systems (Johns Hopkins)

Aug. 2021 - Dec. 2021

- Designed a traffic light simulator in C using the finite state machine design pattern
- Mapped input and outputs to various pins for each traffic light signal, button, and sensor

FPGA Flow GUI, Senior Design I&II (UNC Charlotte)

Spring 2020- Fall 2020

- Researched and wrote automation scripts and GUIs in python (Tkinter) for testing obfuscation techniques
- Created a framework/desktop application for automating obfuscation testing

Embedded Systems Arduino Car, Sophomore Design (UNC Charlotte)

Sept. 2018 - Oct. 2018

- Programmed car controlled using an Arduino Uno in C++
- Implemented a line following algorithm that could handle most curves and tracks

Technical Skills

Programming: C++, C, Python, MATLAB, Java

Software Tools: Linux, Jira, Git/Github, Perforce, Visual Studio Code, Visual Studio, Tera Term

Hardware Tools : Microcontrollers (STM32), Oscilloscope, Function Generator, Turtle Bots

Leadership and Extracurricular Activities

Member, SPOC-LCO, Seagate Technology

Fall 2016 - Spring 2018

- Volunteered for Seagate recruiting events and collaborated with leaders to make Seagate more inclusive

Honors

- **Senior Design Finalist** - Recognized as having one of the top 10 senior projects out of 40 teams Fall 2020
- **EPIC Innovator Certificate** - Top 5 Finalist in the inaugural EPIC Innovator research competition Spring 2019
- **NC Space Grant** - Funding procured to take the Robotics Club to SoutheastCon 2018 Spring 2018
- **Arduino Hackathon Winner** - Won an Arduino hackathon for simulating a security system Fall 2016