

EDUCATION

Bachelor of Science (Honors): Computer Science, December 2019**Mississippi State University (MSU)** – Starkville, MS

CGPA: 3.97 / 4.0

Minor: Mathematics

Forbes Under 30 Scholar - 2019

EXPERIENCE

Software Engineering Intern (SW Architecture) | QUALCOMM**[Summer 2019]**

- Enabled global synchronization using exclusive monitors between compute elements - CDSP and CPU
- Implemented user space spin lock using exclusive load/store atomic operations in C to improve software stack in Snapdragon processors (SoCs)

Machine Learning SWE Intern | ADTRAN**[Summer 2018]**

- Performed loop analysis in Python on VDSL Data HLog, QLN, SNR, and BAT for self-healing automated network
- Introduced guided performance benchmarks for anomaly detection in access networks using supervised/unsupervised/regression Machine Learning techniques

Software Engineering Intern (Fiber Access) | ADTRAN**[Spring 2018]**

- Delivered a new CLI interface for the EPON OLT network architecture in C++ using YANG over NETCONF
- Architected new network interface for ONT provisioning port over REST to ease configuration protocol
- Aided in the layout of new software packages, implemented unit testing and code refactoring while engaging in agile workflow and scrum standups to extend CI/CD

Google CodeU Developer | GOOGLE**[Summer 2017]**

- Designed and developed a messaging app in C++ along with regular code reviews under the mentorship of Google Engineers as one of the 100 students selected nationwide
- Improved the client GUI of the app, added persistent message data storage, implemented a chat bot and statistics analyzing system

RESEARCH

Undergraduate Researcher | High Performance Computing, MSU**[Fall 2017 - Present]**

- Constructing an open-source C++ library as an adaptive 3D mesh refinement API and a computational tool for topology optimization
- Profiled open source project MAST to improve runtime and developed Python/Bash scripts as package installer

Undergraduate Researcher | CSE Department, MSU**[Spring 2016]**

- Engineered a hexapod robot to navigate through a maze autonomously using ultrasonic sensors as a proof of concept for use in search and rescue operation
- Presented research abstract "Object Detection and Avoidance Using Hexapod Robot" at University Symposium

PROJECTS

I – SAFE | HackMobile 19 – QUALCOMM Hackathon**[Summer 2019]**

- Developed a Java Android app to provide real time safety awareness at any given time and location
- Integrated Google maps API with android SDK to port data driven heat maps using Python

TRASH - TAG | Crimson Hacks - Hackathon, (Most Event Driven Award)**[Spring 2019]**

- Built a physical reward system to a social phenomenon to promote the trash tag
- Utilized GCP, AWS and OpenCV for object, face detection/recognition as well as setting up SQL database

NOTIFY APP | ADTRAN 18 - Hackathon**[Summer 2018]**

- Constructed a Java Android app backed with Supervised Machine Learning to prioritize phone notifications

FINANCIAL VOICE | Crimson Hacks - Hackathon**[Spring 2018]**

- Built a smart speech-enabled assistant to help blind people manage finance budget
- Integrated Machine Learning SVR algorithm in Python backend to make stock trade recommendations

MYO CRANE | Hack State - Hackathon, (1st place)**[Fall 2017]**

- Unified the MYO Armband and MYOduino API to wirelessly manipulate the mini scaled construction crane in Arduino with C++ by using hand gestures

TECHNICAL SKILLS

Programming Languages: C/C++, Python, Shell, Java, PHP, Verilog, HTML/CSS**Technologies:** Flask, Perforce, GitHub, JIRA, Arduino, G-Prof, Postman, MULTI, Android