

## EDUCATION

**Bachelor of Science (Honors): Computer Science, December 2019**  
**Mississippi State University (MSU)** – Starkville, MS  
CGPA: 3.96 / 4.0  
Minor: Mathematics

## EXPERIENCE

**Software Engineering Intern (Multimedia) | QUALCOMM** [Summer 2019]  
• Designing, prototyping and developing software drivers in Linux kernel and User space programming to improve software stack in Snapdragon processors

**Machine Learning SWE Intern | ADTRAN** [Summer 2018]  
• Performed data loop Analysis 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** [Spring/Summer 2017]  
• Designed and developed a messaging app in C++ along with regular code reviews under the mentorship of Google Engineers  
• 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 an 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

**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 python backend to make stock trade recommendations

**MYO CRANE | Hack State - Hackathon, (1<sup>st</sup> 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