Ajinkya Nawarkar

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EDUCATION

Bachelor of Science (Honors): Computer Science, December 2019
Mississippi State University (MSU) – Starkville, MS
CGPA: 3.97 / 4.0
Minor: Mathematics

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 atomic operations to improve software stack in Snapdragon processors (SoCs)

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, (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