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
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