Alan Qi Chen

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Education

Ohio State University   Columbus, OH
B.S. Computer Science & Engineering *GPA: 4.0*   Aug. 2019 - May 2023
Relevant Coursework: AP CS A, Principles of Imperative Computation (CMU), Software 1, Software 2

Skills

Languages: C, C++, Java, HTML, CSS, JavaScript, Go, Python, PostgreSQL, Redis
Technologies: Git, Docker, Linux

Experience

Caesar Creek Software | Software Engineer Intern   Miamisburg, OH
C, Docker, Ghidra, Git, Python   May 2020 - Aug. 2020
- Worked with a mentor to train in reverse-engineering concepts, including DLL-injection, python packet building/sending, return-oriented programming, and creating a Linux kernel module
- Created a primitive debugger to write breakpoint instructions in virtual memory for use in a team internal reverse-engineering project

Projects

Bear Blog Engine | Personal   example.aqchen.com
Docker, Git, Go, Next.js, PostgreSQL, React, Redis
- Developed a REST API to interact with databases for a blog engine including JWT authentication
- Created a search-engine-optimized and progressive web application frontend utilizing server-side rendering and redux with an admin dashboard to manage posts and editors
- Reduced API request times by 33% using caching in Redis and page load times by 50% using incremental static regeneration
- Integrated Docker and GitHub actions for continuous deployment and development

College Cheque | Team   aqchen.pythonanywhere.com
CSS, Flask, Git, HTML, JQuery, Python
- Used python to parseCreated a web application that lets students and parents a tool to receive personalized financial information on over 5,800 US colleges to aid the college decision process
- Winner of JPMorgan Chase's "Best FinTech for Good" challenge

Autonomous Robot | Software Lead, Course Team Project   robot.aqchen.com
C++, Git, MATLAB, SolidWorks
- Built a PI controller to autonomously move a tri-omniwheel robot on a course to complete tasks faster than any other team using pregenerated coordinates and velocity
- Added course calibration, error correction, and PI controller error logging to tune to above 99% accuracy
- Designed the robot from scratch in SolidWorks and continuously improved the design after tests
- Completed required biweekly milestone tests three days early while working with a tight budget

Toonify | Personal   toonifyapp.aqchen.com
Android, Java, OpenCV
- Built an Android app to apply a cartoon filter using the OpenCV library on new or existing photos
- Recently updated to support Android Q and released on the Google Play Store

Activities

Code 4 Community | Backend Team   Aug. 2019 - Present
MongoDB, Node.js, React
- Creating a web app for OSU professors and mental health researchers which will allow adolescents with mental health issues to receive articles, activities, and surveys
- Implemented API routes for the backend including fetching posts, registering, and logging in

Awards

Challenge Winner and Overall Finalist   Hack OHI/O
Winner of JPMorgan Chase's "Best FinTech for Good" Challenge out of 19 competing teams and overall
Finalist out of over 700 attending students   Nov. 2019

Maximus Scholarship   The Ohio State University
Awarded for academic achievements, including top 3% of class rank   Autumn 2019