

Alan Qi Chen

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Education

Ohio State University

Columbus, OH

B.S. Computer Science & Engineering GPA: 3.937

Aug. 2019 - May 2023

Relevant Coursework: *Principles of Imperative Computation (CMU)*, *Software 1*, *Software 2*, *Systems 1*

Skills

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

Experience

United Launch Alliance | Software Engineer Intern

Denver, CO

- Current summer internship

May 2021 - Aug. 2021

Caesar Creek Software | Software Engineer Intern

Miamisburg, OH

C, Docker, Ghidra, Git, Python

May 2020 - Aug. 2020

- Used reverse-engineering concepts including DLL-injection and return-oriented programming
- Developed a TFTP client in Python, and a Linux kernel module in C to give user mode access to memory
- Created a primitive debugger in C used in an internal project to write breakpoint instructions in memory

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

- Created 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
- Used python to parse over 5,000 rows of colleges with incomplete data
- 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 in C++ 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
- Created detailed documentation for the code and PI controller design using Doxygen and Sphinx
- Completed required biweekly milestone tests three days early with a constrained budget

Toonify | Personal

toonifyapp.aqchen.com

Android, Java, OpenCV

- Built an Android app to apply images filters using the OpenCV library on new or existing photos
- Used neural transfer style models with OpenCV to apply various art styles on images

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 OH/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