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

Experience

Caesar Creek Software | Software Engineer Intern — Miamisburg, OH
C, Docker, Ghidra, Git, Python — May 2020 - Aug. 2020

- Trained in reverse-engineering concepts including DLL-injection, python packet building/sending, return-oriented programming, and creating a Linux kernel module
- Built a debugging tool that led to discoveries while contributing to an internal reverse-engineering project

Selected Projects

Bear Blog Engine | Personal — example.aqchen.com
Docker, Git, Go, Next.js, Postgres, React, Redis

- Developed a REST API to interact with databases for a blog engine including authentication
- Implemented caching using Redis to reduce API request times by 33%
- 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
- Integrated Docker and GitHub actions for automatic 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
- Winner of JPMorgan Chase's "Best FinTech for Good" Challenge

Autonomous Robot | 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 using pregenerated coordinates and velocity
- Added course calibration, position error correction, and PI controller error logging
- 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 tight deadlines

Toonify | Personal — github.com/alanqchen/Toonify-App
Android, Java, OpenCV

- Built an Android app to apply a cartoon filter using the OpenCV library on new or existing photos
- Built upon a low level CLI project which included additional filters to apply blur, painting, and edge filters

Activities

Code 4 Community | Backend Team — Aug. 2019 - Present
MongoDB, Node.js, React

- Participated in 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

Skills

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