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 and worked with 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 a budget and 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