

Alan Chen

aqchen.com · github.com/alanqchen · linkedin.com/in/alanqchen

EDUCATION

Ohio State University

B.S. Computer Science & Engineering GPA: 3.96

Columbus, OH

Aug. 2019 - May 2023

SKILLS

Languages: C, Kotlin, Java, Python, HTML, CSS, JavaScript, Go, TypeScript, Dart, SQL

Technologies: AWS, CI/CD, Docker, Git, Linux, PostgreSQL, Redis

EXPERIENCE

Amazon

Software Development Engineer Intern

Seattle, WA

May 2022 - Aug. 2022

- Deployed an automated device test farm for Android application verification, supporting multiple device configurations and parallel job requests, by designing a **scalable back-end service using AWS services** including Lambda, ECS, SQS, S3, DynamoDB, and API Gateway
- Reduced the number of manual effort hours required to implement software changes throughout Amazon's devices by providing automation of device validation and verification when software changes are introduced via an API
- Continuously worked across multiple teams and with senior engineers and management to gather requirements, identify risks, prioritize tasks, and verify the proposed design

Blue Origin

Software Engineer Intern

Seattle, WA

Sept. 2021 - Dec. 2021

- Verified open-loop test outputs for New Glenn's flight and control software by developing a program to efficiently calculate and plot the error between thousands of expected and actual outputs in **Python**
- Initiated tracking technical performance metrics by recording the size of the main flight computer's binaries
- Integrated projects into continuous integration pipelines to run and create artifacts automatically

United Launch Alliance

Software Engineer Intern

Denver, CO

May 2021 - Jul. 2021

- Spearheaded increasing the security and code quality in the data access control and engineering data applications by integrating SonarQube into the **CI/CD** pipelines
- Created **React** applications to increase automation to significantly reduce the time needed to approve npm packages and help managers sign off on engineering documents

Caesar Creek Software

Software Engineer Intern

Miamisburg, OH

May 2020 - Aug. 2020

- 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

Docker, Git, Go, Next.js, PostgreSQL, React, Redis

example.aqchen.com

- Developed a fullstack blog platform application using **Go** for a REST API and **Next.js** to display posts and dashboard using JWT authentication to manage posts and editors
- Reduced API request times by 33% using Redis for caching and page load times by 50% using server-side rendering

College Cheque

CSS, Flask, Git, HTML, JQuery, Python

aqchen.pythonanywhere.com

- Enabled students and parents to receive personalized financial information, including tuition and average salary, on over 5,800 US colleges to aid the college decision process through a web app
- **Winner** of JPMorgan Chase's "Best FinTech for Good" challenge out of over 700 students

Autonomous Robot

C++, Git, MATLAB, SolidWorks

robot.aqchen.com

- Built a PI controller in **C++** to autonomously move a tri-omniwheel robot designed from scratch on a course to complete tasks faster than any other team using pregenerated coordinates and velocity
- Developed course calibration, error correction, and logging to tune to **above 99% accuracy**

Toonify

Android, Java, OpenCV

toonifyapp.aqchen.com

- Built an Android app to apply image filters using the OpenCV library, with over 800 installs on the Google Play store