Anthony Chen

Skills

Languages | Python, C++, C, Java, JavaScript, TypeScript, Bash, SQL, PHP, Solidity, PowerShell, GLSL **Tech** | Django, DynamoDB, EC2, Flask, Lambda, MongoDB, Node, NumPy, PostgreSQL, Qt, React, S3 **Development** | GDB, Ghidra, Git, GitHub, Gradle, GTest, Linux, Make, Pytest, Snap, Valgrind, Wireshark

Experience

Software Engineer Intern

May 2024 – Aug 2024

Amazon

Vancouver, Canada

- Designed and implemented 20M+ row data warehouse with DynamoDB backfill, live updates, and data ETL
- Created Athena database for on-call developers, supporting standard SQL and speeding up queries by 30x
- Developed **BFF and React UI** allowing other teams to submit sanitized queries, view results, and export data

Software Member

May 2023 - Present

Waterloo Rocketry

Waterloo, Canada

- Took on sensor setup and operation-critical telemetry dashboard creation/monitoring during 5 engine tests
- Maintained rocket engine simulator and migrated 10+ simulation parameters to new configuration system

Team Captain

Jun 2022 – Jun 2023

FIRST Robotics Competition

Toronto, Canada

- Co-founded team, recruiting over a hundred students and raising \$75,000+ with demos and outreach events
- Coordinated build process by planning 20+ workshops for the building, electrical, and software subteams

QA EngineerRubixDAO

May 2021 – Aug 2021

Remote

• Wrote 90+ smart contract tests with PyTest to achieve 100% test coverage, contributed to on-chain demo

Projects

- **𝒇 UWMap** | C++, ESP32, FastAPI, Next.js
 - Programmed and deployed 8 hardware nodes across campus to track and report crowd densities via API
- Odgecoin-unofficial | Bash, GitHub, Linux, Snap
 - Investigated 40+ reports of issues from Linux users attempting to install the official Dogecoin Core software
 - Wrote Bash scripts to retrieve official binaries, verify multiple developer signatures, and run 250+ tests
 - Packaged Snap for amd64, arm64, and i386, active users in 35+ countries, accepted and merged upstream
- COSine | CSS, HTML, Node, React
 - Won 2nd Overall in Major League Hacking PrideHacks, mid-hackathon rebuild from JavaScript to TypeScript
 - Integrated OpenAI with prewritten story paths to enhance societal awareness of modern social issues
- - Collaboratively created Flask platform with **1300+ registered users** to host interactive security challenges
 - Implemented admin console, logs and 90% coverage with Pytest; fixed Markdown render and SQL bugs
 - Used CAPTCHA, backups, rate limiting, and 2FA to ensure 99.99% availability and prevent security breaches
- 2022-robot | C++, GitHub, Gradle, WPILib
 - Led a team of **4 developers** to create autonomous and tele-operated code to control drivetrain subsystem
 - Wrote control code using slew rate limiting with a PID controller to improve robot acceleration and turning

Education

University of Waterloo

Bachelor of Software Engineering, Honours Combinatorics and Optimization Minor

• Cohort Academic Representative

Sep 2023 – Present Waterloo, Canada 85% Cumulative Average