

# Anthony Chen

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## 📖 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/now implementing data warehouse with live updates from **20+ tables** using change data capture
- Cleaning **400+ GB** of data with ETL operations and integrating query engine to support debugging and export

**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 Engineer** May 2021 – Aug 2021  
*RubixDAO* Remote

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

## 🔧 Projects

🔗 **UWMap** | C++, ESP32, FastAPI, Next.js  

- Programmed and deployed **8 hardware nodes** across campus to track and report crowd densities via API

🐶 **dogecoin-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 storylines to generate interactions that **enhance societal awareness**

🔗 **CTFOJ** | Bootstrap, Pytest, Python, SQL  

- 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** Sep 2023 – Present  
*Bachelor of Software Engineering, Honours* Waterloo, Canada  
*Combinatorics and Optimization Minor* 85% Cumulative Average  

- Cohort Academic Representative