# **Anthony Chen**

### Skills

**Languages** | Python, C++, C, Bash, Java, JS, TypeScript, PHP, SQL, Solidity, PowerShell, GLSL **Technology** | Flask, Node, React, PyCrypto, jQuery, Django, MongoDB, SFML, NumPy, Pygame **Development** | Linux, Git, GitHub, Pytest, Snap, GDB, Make, Wireshark, Valgrind, Gradle, LaTeX

# Projects

### **𝚱 UWMap** | C++, ESP32, FastAPI, Next.js

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

### G 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 Gitian-generated signatures, and run 250+ wallet 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**

## **𝚱** 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

# Experience

### **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
- Led team to qualify for and compete in world championships with daily meetings during inaugural season
- Coordinated build process by planning **20+ workshops** for the building, electrical, and software subteams

#### Co-Founder

Oct 2020 - Jun 2023

X Series CTF

Toronto, Canada

- Promoted security awareness with **weekly workshops** on cryptography, forensics, and OSINT research skills
- Organised contests and created challenges with 150,000+ total submissions on the above CTFOJ platform

### **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

### **Education**

### **University of Waterloo**

Bachelor of Software Engineering, Honours

Combinatorics and Optimization Minor

Cohort Academic Representative

Sep 2023 – Apr 2028 Waterloo, Canada 90% Cumulative Average