Qian Qian

✉ me@qubik.top | ⊙ Qubik65536 | in in/qianq | 🌐 qubik65536.top

Skills

- **Languages**: Java, Python, Shell, C, C++, Kotlin, Rust, Swift, Typst, LaTeX
- **Tech/Tools**: Git, GitHub Actions, Linux, Unit Testing, JUnit, PyTest, NGINX, Docker, Ktor, Flask, SwiftUI, Quilt

Experience

Software Developer ⊙   September 2025 — Present
Waterloo Rocketry   *Waterloo, Ontario, Canada*
- Built Mission Control System infrastructure to enhance deployment efficiency and system reliability by implementing Docker containerization and Ansible configuration management.
- Implement Python-based data aquisition and processing systems and PyTest-based unit tests.
- Mentored less experienced team members to improve the team's overall software development capabilities by teaching software development best practices, tools, and collaborative workflows (e.g. git, unit testing, pull request workflow, etc.)

Teaching Assistant (Java), Data Structures and Object Oriented Programming   January 2025 — May 2025
Vanier College   *Montreal, Quebec, Canada*
- Supported 61 students to improve subject comprehension by clarifying course concepts and assignment requirements.
- Graded 6 assignments to evaluate student performance by providing timely and constructive feedback.

Sub-Captain, Programming Competition Subteam ⊙   September 2024 — May 2025
Vanier Robotics Team   *Montreal, Quebec, Canada*
- Prepared the team by organizing and leading 10+ Python and algorithm-focused preparatory workshops.
- Achieved 1st place in Division 1 at CRC TakTik 2025 programming competition with the team.

Projects

QubeC - *Rust, C++*   August 2025 — Present
- Implemented a bytecode compiler and virtual machine for a C-like programming language.

Typstify - *Swift, SwiftUI, Rust* ⊙   July 2024 — Present
- Developed a native Typst editor for iPadOS to enable professional document creation on iPads by leveraging SwiftUI with Rust backend integrated via swift-bridge, a library facilitating interoperability between Swift and Rust.
- Contributed to 3 upstream dependencies to strengthen both the app and the broader open-source ecosystem by submitting code patches and bug reports.

Maintainer, ungoogled-chromium-macos ⊙   November 2023 — Present
- Delivered 100+ releases to 5000+ users to provide a privacy-focused browsing experience on macOS by tracking upstream updates and maintaining build scripts and patches.
- Reduced the CI build time by 40% to accelerate release cycles by optimizing GitHub Actions workflows.

CalcLox - *Java*   January 2025 — May 2025
- Designed and implemented the interpreter of a custom scripting language based on Lox for a programmable calculator.
- Implemented unit testing using JUnit to ensure the correctness of the interpreter.

Education

University of Waterloo   Waterloo, Ontario, Canada
Candidate for Bachelor of Software Engineering, Honours Software Engineering, Co-op   *September 2025 — May 2030*

Additional Information

- **Honour and Awards**: Winner of Hack the North 2025 QNX Software Challenge, Canadian Senior Mathematics Contest Distinction (2024), 2 x Canadian Computing Competition Distinction (2023, 2024)
- **Activities**: Programming Competition Problem Setter at CRC Robotics