Leo Qi

1B Computer Engineering · Student #: 21007357 · leo@leozqi.com · github.com/leozqi

SUMMARY OF QUALIFICATIONS

- Effective team player with the initiative to identify solutions and the troubleshooting experience to verify them
- Concise communicator and thorough documenter with FIRST Robotics competition experience
- Passionate, adaptable dev with in-depth C++, Python, GNU/Linux (Debian downstream), and git understanding

EXPERIENCE

IT Developer · *University of Waterloo Dept. of Psychology* *Jan. 2023 - Apr. 2023*

- Independently created fully documented PyQt 6 application for psychology experiment in 3 weeks with QWeb EngineView, QWebChannel UI with embedded Javascript and extensive how-to notes for research assistant
- Created Tkinter GUI Python app saving lab >3 hours per experiment run to process audio file dump and CSV
- Wrote clean, commented code with extensive continuity docs using Markdown files in department Gitlab
- Refactored pre-existing Python Flask web inventory management app into three modules handling database operations, URL requests, and department-specific logic separately and added documented use of pipenv
- Earned excellent overall employer rating by working well with coworkers to quickly complete faculty/staff requests using the Jira ticketing system with a satisfaction rating (CSAT) of five stars.

C++ Programmer · *FIRST Robotics Team 772* *Oct. 2019 - Jan. 2022*

- Implemented Xbox controller functionality using the FIRST WPILib C++ robot deploy toolchain.
- Led technical design for team's FIRST Innovation Award entry (Raspberry Pi 4B+ board, Mycroft Python 3 voice assistant), creating and presenting PowerPoint slides describing specifications to FIRST judges
- Built and deployed FIRST Tech Challenge robot drivetrain code using the FTC Java SDK and Gradle and wrote clear documentation for future competitions using Javadoc-formatted Doxygen comments and Markdown
- Collaborated with team effectively using git hosted on Gitlab to complete deliverables on-time within fast-paced competition schedules.

PROJECTS

ECE 198 Project Studio · *https://github.com/leozqi/ece198* *Sep. 2022 - Jan. 2023*

- Created device alerting users unsafe temperatures with audio/visual alarm using the C language, STM32 Nucleo-F401RE dev board, and AM2301B temperature/humidity sensor (DHT one-wire data transfer).
- Received course mark of 93% for deliverables including design document and prototype functionality tests.

Nextcloud personal cloud · *https://cloud.leozqi.com* *Apr. 2022 -*

- Deployed Nextcloud, PostgresDB, Redis, and auto-renewing LetsEncrypt SSL/TLS cert using docker-compose
- Created user groups for each process with targeted permissions and isolated local volumes for system security
- Configured minimal Ubuntu GNU/Linux based nginx reverse proxy with automatic systemctl poweroff recovery

Python email client · *https://github.com/leozqi/python-email-client* *Jul. 2020 - Aug. 2020*

- Used object-oriented principles to implement and document encapsulated EmailGetter IMAP server connection class, SQLite database interface, and cross-platform Tkinter GUI for app

EDUCATION

University of Waterloo Sep. 2022 -

B.A.Sc Computer Engineering candidate year 1B; class of 2027