Ray Gong

Software Developer

BSc in Computer Science, University of Alberta

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🐙 github.com/goldentoaste

🏠 goldentoaste.github.io/portfolio

Languages

Python, JavaScript, TS, Java, HTML, CSS, C++, SQL

Frameworks

Django, PyQt5, Svelte, Flutter, React, Google Firebase, NumPy

Tools

Android, Unity, GraphQL, REST, Heroku, Google Cloud, AWS

Experience

Software Developer Intern at **Interface Fluidics**
May 2022 – January 2023
Edmonton, Alberta

- Developed Windows desktop applications with PyQt as an interface for image processing
- Built automated tools for commercial image analysis using OpenCV, SciPy, and NumPy
- Improved workflow efficiency by redesigning legacy codebase for big data pipelines
- Implemented autmated database sanitization and data entry using Python and GraphQL
- Collaborated with a team of 5 developers to ensure inter-program compatibility
- Utilized Jira and Bitbucket for project management and version control

Projects

Toneteller (2nd place winner at HackED 2023)
devpost.com/software/toneteller

- Collaborated with a team of six developers to build a React web application that uses sentiment analysis AI to detect the tone of written text, ranking top 2 out of 48 teams.
- Deployed a Python Flask server on a Google Cloud Run instance using Docker
- Developed a Google Chrome extension using the Chrome API, JavaScript, HTML, and CSS that retrieves the sentiment analysis results from the Flask server
- Integrated the sentiment analysis model RoBERTa into the Flask server, which processes requests from the client

Screencap
github.com/goldentoaste/screenCap

- Developed a user interface with tkinter and implemented image processing with Pillow
- Utilized Windows API to monitor global hotkey events to take screenshots
- Implemented image handling with Pillow loading, saving, and copying images to clipboard
- Designed a user-friendly interface with customizable hotkeys for ease of use
- Rewrote program in PyQt5 to improve performance, add new features, and achieve cross-platform compatibility

Experimenter
github.com/CMPUT301W21T21-H03/DivineInspiration

- Designed and organized code structure through creation of UML diagrams, user stories, and product backlogs
- Developed a data visualization tool with graphs to display data using MpAndroidChart
- Integrated an interactive map with location markers using Google Maps API to visualize experiment locations
- Implemented backend functionalities for login handling and user identification
- Developed Firebase API handling and designed database structures
- Implemented data collection by scanning barcodes and QR codes using ZXing

Education

BSc Honours Computer Science, University of Alberta
September 2019 – May 2024

Relavent Courses: Software Engineering, Software Processes, Web Architecture, Algorithms, Functional Programming, Linear Algrebra, Statistic, Graph Theory, Real Analysis