Raymond Liu

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Education

McGill University Montreal, QC

BEng, Software Engineering Co-op | CGPA: 3.5/4 August 2022 – May 2026

Computer Organization, Algorithms and Data Structures, Operating Systems, Model Based Programming

Industry Experience

Intern in Technology and Innovation Montreal, QC

Solutions Will – MS Power Platform, TypeScript, Salesforce May 2023 – August 2023

- Conceptualized and implemented the enterprise's business process automation plan
- Corresponded with Salesforce clients and translated needs into systems requirement documents
- Developed custom connectors for MS Power Platform, reducing future development time by 50%
- Programmed various automations in TypeScript and MS Power Platform, boosting business process productivity by up to 100%

Projects

AssetPlus *McGill Model-Based Programming*

Java, JavaFX, Gherkin, Cucumber, Umple, Figma August 2023 – December 2023

- Utilized model-based programming to generate 5000 lines of code, reducing manual man hours by 75%
- Led UX design of GUI, producing standardized components with team, reducing design hours by 50%
- Authored extensive Gherkin scenarios to perform automated behavioral testing of model using Cucumber
- Performed peer-review of behavioral tests, identifying issues and proposing solutions with original authors

BrickPi3 Robot *McGill DPM*

Python, BrickPi3 August 2023 – December 2023

- Led development of software using OOP to reduce size of codebase by 40% relative to average
- Achieved a 50% reduction in task completion time relative to project specifications through the use of concurrent programming and algorithm optimization
- Managed close systems integration between hardware and software teams, resulting in a 20% reduction in total budget utilization

Chip8 Emulator

Rust, Web Assembly, WebGL, Egui, Eframe, SDL2 March 2023 - Ongoing

- Programmed a Chip8 emulator in Rust packaged with Chip8 binaries to play retro games
- Implemented GUI using immediate mode Egui for cross-platform compatibility on the web and natively
- Utilized Eframe to mount WAsm binary to the web, resulting in 3x performance increase compared to JS

Othello & Algorithm Analysis *Marianopolis College*

Python, Tkinter, Pandas May 2022

- Created Othello game logic using OOP concepts and front end using Tkinter
- Implemented Minimax and Alpha-Beta gameplay algorithms for computer player
- Performed quantitative analysis of performance of algorithms using Pandas

Technical Skills

- Languages: C/C++, Java, JS & TS, Python, Rust
- Courseware: CS50, Algorithms Part I, Odin Project
- Spoken Languages: English (Native), French (C2/C1), Mandarin (Spoken)