Raymond Li

li.raymond04@gmail.com | 587-889-9319 |linkedin.com/in/liraymond04|github.com/liraymond04

TECHNICAL SKILLS

- **Programming Languages**: C♯, SQL, JavaScript, TypeScript, Python, C, C++, Java
- **Frameworks & Libraries:** ASP.NET Core, Blazor, React, Next.js, Express.js, SvelteKit
- **Tools & Platforms:** Git, GitHub Actions, Docker, Linux, Bash, Jira
- **Core Competencies:** Object-Oriented Programming, Data Structures & Algorithms, Technical Documentation

EDUCATION

University of British Columbia| Vancouver, BC
Bachelor of Science, Combined Major in Computer Science and Mathematics
September 2022 - May 2027 (Exptected)

PROFESSIONAL EXPERIENCE

Software Developer | AUAV Tech
June 2025 – August 2025

- Developed and maintained **full-stack features** for a comprehensive **inventory management system** and employee timesheet/expense tracking platform using **SvelteKit**, **TypeScript**, **Docker**, and **PostgreSQL/SQL**
- Implemented **user auth and permission checks** across the system, enhancing security and access governance
- Created **SQL queries and DB operations** for search and data filtering, improving data retrieval for large datasets
- Led the integration of **Docker-based deployment**, **GitHub Actions CI/CD** pipelines, and environment secret handling, streamlining development workflows and production readiness
- Designed and built inventory search with **pagination**, **table sorting**, and **fuzzy search** features across inventory records, improving scalability and user experience for large datasets, improving operational visibility and accuracy
- Authored user and administrator **usage documentation**, automating documentation site generation with **MkDocs** integrated into **GitHub Actions CI/CD** pipelines for seamless updates and easy access
- Provided **ongoing application support** after the official end of the work term, troubleshooting and resolving deployment issues and software bugs to ensure continued smooth operation and usage

Summer Software Developer | ECSSEN Career School
July 2023 - August 2023 & June 2024 - July 2024

- **Front-end developer** for decentralized and permission-less volunteer management site built in **Next.js**
- Implemented and maintained comprehensive **technical documentation using JSDoc**, achieving over **90%** coverage across the codebase and including practical usage examples to support onboarding and development consistency
- Created and updated **UML class diagrams** to visualize and communicate application architecture, enabling clearer understanding of component interactions and expected flow
- Leveraged **AGILE methodologies** to streamline teamwork in **JIRA**, ensuring efficient feature delivery through iterative development and communication with supervisors and marketing team
- Designed and developed a user-friendly **front-end UI for the dashboard**, improving readability and intuitive navigation, enhancing the overall user experience for seamless interaction with the platform
- Deployed API services to a backend **Express.js server** for secure and efficient authentication flows, improving system reliability and user access management, and reducing authentication errors

Open Source Contributor | Aurie
November 2023 - Present

- Developed and enhanced a **GUI installer** for a Windows-based **mod-loading framework** using **C#** and **WPF (.NET),** improving usability and reliability of installation workflows on both **Windows** and under **Wine in Linux**
- Implemented robust directory structure verification and **conditional launcher logic**, ensuring proper configuration before runtime with explicit loading logic for **Windows** environments
- Added **Wine compatibility detection** using native ntdll calls, enabling broader **platform support on Linux** systems

PROJECTS

rz-list | Personal project
August 2025 - Present

- Built a **responsive reading list application** using **ASP.NET Core Blazor Server**, integrating an **MS SQL Server** backend via **Entity Framework Core** for efficient **CRUD operations** on users' book collections, ensuring data integrity through validation and constraint enforcement
- Applied a **component-based architecture** using Razor components to structure UI into modular pieces such as book list views, detail panels, and input forms, enhancing maintainability and reusability for developers
- Leveraged **dependency injection (DI)** to manage database context factories and navigation services, injecting the **SQL Server database context** and NavigationManager into Razor components to promote clean separation of concerns and testability while ensuring proper database connection lifecycle management
- Used **Entity Framework migrations** to maintain schema alignment between code models and database structure, preserving data integrity during schema changes
- Streamlined development using **ASP.NET Core code generation tools** to scaffold **CRUD operations** for **entity models**, reducing coding time while maintaining consistent database interaction patterns across the application

personal-site | Personal project
July 2023 – December 2024

- Created and implemented a responsive personal website using **Svelte** and **SvelteKit**, using **TypeScript** to ensure strong type safety and maintainable code, showcasing modern web development practices
- Automated repository interactions with **Supabase** via **GitHub Actions** with **Python and Bash** scripts, enabling continuous integration for projects like **ctf-writeups** with seamless content synchronization
- Leveraged **CDN content delivery** for hosted assets such as project files and images, enhancing global access speeds and responsiveness by **25%**, and reliability for diverse user bases by **15%**

olc-rts | Personal project
June 2023 – September 2023

- Used **olcPixelGameEngine** to develop a **GUI application** that renders a 3d-like hexagonal grid
- Demonstrated knowledge in **data structures and algorithms** to **compute the shortest path** between tiles, applying software design principles for modularity and extensibility in open-source collaboration
- Applied **C++** classes and the **composition design pattern** for developing application features such as interfaces for injecting custom player actions, and injecting custom draw calls into the render queue
- Built **custom data structures** including HexMap template class and spatial hash tables for efficient coordinate mapping, demonstrating knowledge of data structures optimization for performance-critical applications

Monopoly-Java | CPSC 210 Software Construction Project
January 2023 – April 2023

- Crafted a **Text User Interface (TUI)** in **Java**, implementing **dependency injection** to decouple **UI rendering**, game logic, and input handling, resulting in **modular architecture**, enhanced maintainability, and easier **testing in JUnit**
- Engineered core game entities like players, properties, and board mechanics using **object-oriented design**, applying **encapsulation** and **separation of concerns** across components.
- Developed a **command parser** to interpret user actions (roll, move, buy, trade), equipped with **robust error handling** to manage unexpected or invalid inputs gracefully
- Managed **game state visualization** via the terminal, efficiently updating and redrawing player status and board layout each turn to maintain clarity and **interaction flow**
- Designed the architecture with clear **layered separation** with distinct modules for UI, input, and game logic, enabling future extensibility and potential integration of advanced features (e.g., AI players or persistence)

AWARDS

- University of Waterloo Canadian Computing Competition, Honour Roll
- University of Waterloo Euclid Math Contest, Distinction