

# Luke Lu

[www.lukelu.dev](http://www.lukelu.dev) | [luke.yanglu@outlook.com](mailto:luke.yanglu@outlook.com) | [www.linkedin.com/in/lukeyanglu](https://www.linkedin.com/in/lukeyanglu) | [www.github.com/LukeL0000](https://www.github.com/LukeL0000)

## Technical Skills

### LANGUAGES

C#, Java, C++, Python, JavaScript, HTML/CSS, SQL (SQL Server, Oracle, SQLite)

### PLATFORMS/Frameworks/ARCHITECTURES

.NET (.NET MAUI, ASP.NET Core), React.js, Node.js, Express.js, JUnit, GNU (GDB), MVC, REST

### TECHNOLOGIES/APIs

Git, Docker, AWS, IIS, Unix (Linux, Mac), SSRS, JDBC, JSON, Ollama, OpenAI

## Work Experience

### JAN 2025 – PRESENT (Contractor Full-Time)

#### Full Stack Software Developer (Android Platform) – Canadian Nuclear Laboratories

**Tech stack: .NET MAUI, ASP.NET CORE, C#, JavaScript, HTML/CSS, MS SQL Server, SSRS**

- Leading the implementation and assisting in the design of a secure high-availability fault-tolerant android platform that will be the next evolution of our existing sitewide facility readings & inspections system. Expecting to deliver an effective cutting-edge end-product that is consistent with CNL's reputation of technical innovation.
- Continuing to support software projects, with a focus on delivering new high-priority features to our clients.

### MAY 2024 – DEC 2024 (Contractor Part-Time) | SEPT 2023 – APR 2024 (Co-Op)

#### Full Stack Software Developer (Web & Database Systems) – Canadian Nuclear Laboratories

**Tech Stack: ASP.NET CORE, C#, JavaScript, HTML/CSS, MS SQL Server, SSRS**

- Spearheaded the implementation of a robust feature-rich web platform automating sitewide equipment maintenance operations. Reduced missed required maintenance by >95% and maintenance overhead time by >80%. Revamped user experience on the existing Fleet Management web platform, enhancing visuals and reducing clicks-per-operation >50%.
- Streamlined reporting services by altering database schema to support report-oriented tables. Reduced lines-of-code for reporting queries by >30% and stored procedure execution times by >50%. Introduced live data analytics to the Fleet Management homepage and on-demand reporting. Reduced error margin of frequently requested reports by >90% and saved in excess of 300 work hours and counting.
- Enhanced the integrity of our data pipeline for numerous projects by normalizing databases and implementing additional client and server-side input processing and validation. Eliminated all data anomalies in the affected projects.

## Recent Software Projects

### SUMMER 2024

**LLM Code Interpreter** – React/Express.js, JavaScript, HTML/CSS, SQLite, Docker, Ollama

<https://github.com/LukeL0000/LLMCodeInterpreter>

- Implemented a database and LLM-Driven React/Express.js web application that generates code based on user prompts.
- Utilized open-source large language models from Ollama to generate working code based on user prompts. Ensured consistency through extensive prompt engineering and output parsing.
- Containerized and deployed locally using Docker for maximum device compatibility.

### SUMMER 2023

**Trip Organizer** – Java, JDBC, Oracle Database, JavaFX

<https://github.com/LukeL0000/TripManager>

- Developed a comprehensive database-driven solution for finding, organizing, and recording trips. Created a simple JavaFX front-end delivering a reliable user experience integrating effectively into the Java back-end that accesses an Oracle Database via JDBC.
- Enforced consistent logic for trip organization through entity relationships and column constraints, empowering the user with relevant information for organizing the best trips that they desire.

## Education

### SEPT 2021 – MAY 2026 (EXPECTED)

Major in Computer Science, Faculty of Science – University of British Columbia

Core GPA: 3.85 | 83%