Luke Lu

www.lukelu.dev | luke.yanglu@outlook.com | www.linkedin.com/in/lukeyanglu | www.github.com/LukeL0000

Technical Skills

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

PLATFORMS/FRAMEWORKS/ARCHITECTURES
.NET/ASP.NET Core, React.js, Node.js, Express.js, JUnit, GNU (GDB), MVC, REST

TECHNOLOGIES/APIs
Git, Docker, AWS, SSRS, Unix (Linux, Mac), JDBC, Ollama, OpenAI

Work Experience

JAN 2025 – PRESENT (Contractor)
Full Stack Software Developer (Android Platform) – Canadian Nuclear Laboratories
Tech stack: TBD
- 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 record 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) | 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 using Java and a JDBC-linked Oracle Database.
- Created a simple front-end JavaFX GUI that delivers 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
GPA: 3.85 | 83%