

Joshua Luo

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Work Availability: Up to 12 months

Skills

Languages: Python, Java, C, C++, JavaScript, SQL, HTML/CSS

Technologies/Libraries: POSIX OS API C/C++, BS4, Matplotlib, NumPy, Flask, docstrings, Jinja, PostgreSQL, Angular, React

Technical Work Experience

Software Developer - QUINI

June - August 2024

- Fixed critical errors and bugs in Angular and React applications, enhancing overall stability and user experience
- Updated and optimized Elasticsearch configurations, improving search performance and accuracy by approximately 25%
- Upgraded the QUINI SOMM widget from the deprecated Jade framework to Angular, enhancing functionality, improving user experience, and resolving existing bugs

Software Developer - Falcon Technologies

May - June 2021

- Developed an end to end mortgage API in Python with ETL and stored data in a PostgreSQL database
- Automated data updates to PostgreSQL database and created a basic html interface to view API

Projects

myCraft - C++, OpenGL - [Github](#)

- A 3D voxel sandbox game, developed in C++ and utilizing OpenGL, serves as an ongoing personal learning project. Dedicated to refining expertise in GPU APIs and advancing game development skills.
- Incorporated features such as fundamental physics, three-dimensional collision detection, procedural generation, and map editing into the project.

Unreal Engine Commercial Flight Tracker - C++, Unreal Engine, SQLite - [Github](#)

- Using Unreal Engine, deployed an application that integrates Cesium and the Google Maps API to simulate the position of a user selected, live-flight, commercial aircraft on the globe.
- Flight data is collected from the FlightRadar24 API to display flights to the user, and translated to application coordinates to determine a plane's location on the Cesium globe.

Web Database Interface - Flask, SQLAlchemy - [Github](#)

- Designed a SQLite database interface through Flask and Jinja templating
- Capable of uploading images and editing existing data
- Created authentication system with individual user accounts

Discord Market Price Bot - Python - [Github](#)

- Designed a market bot that displays prices of in-game items and charts price history and trends
- Displays data through Discord embeds and image price charts updating every hour automatically
- Data was scraped using BeautifulSoup Library and integrated with Discord.py Library

Education

Bachelor of Applied Science - Simon Fraser University

September 2021 - June 2025

- SFU Alumni Scholarship (2022)
- Top 25% Senior Canadian Computing Competition award (2021) - Ranked 226 out of 2920 Contestants (Top 8%)
- BC Achievement Scholarship (2021)
- BC District/Authority Scholarship (2021)