Toronto, Canada
albertjianluo@gmail.com

Albert Jian Luo

https://www.linkedin.com/in/albert-jian
https://github.com/aj-luo

I am a software developer eager to embrace new challenges and innovate via problem-solving and continuous learning.

Work Experience

Application Software Developer **Bank of Montreal** **June 2023–Present**
Technology & Operations Markham, Canada

- Utilized IBM API Connect to develop, manage, and secure 100+ REST and SOAP APIs, developing Node.js scripts to filter transactions, mitigating malicious requests and ensuring API performance and security for users across Canada.
- Engineered applications that helped seamlessly transition 200+ legacy APIs from a TIBCO backend to an AWS backend, modernizing infrastructure and improving scalability and performance.
- Managed SQL databases to document API functionality, usage details, and related metadata, ensuring efficient access for bank personnel to acquire API information for troubleshooting or development.
- Developed Python scripts integrated with Red Hat Ansible to automate the inspection of Swagger api definition files, minimizing human error and ensuring proper formatting, compliance, and consistency across API definitions.

Technology Analyst Intern **Bank of Montreal** **May 2022–August 2022**
Technology & Operations Toronto, Canada

- Collaborated with a large team to transition BMO's legacy software (Livelink) to a modern, user-friendly interface, working closely with UI/UX teams to suggest and refine design improvements.
- Conducted systems integration testing to ensure seamless functionality of the updated UI, assisting front-end developers by identifying and resolving bugs, simulating software for defect detection, and managing Jira tickets to track and deliver fixes and features on time.

Education and Certifications

- **B.Sc. Computer Science Major, Statistics and Mathematics Minor,** University of Toronto, St. George **2019-2023**

Technologies and Languages

- Languages: Python, Java, Javascript (Node.js), C++, Bash, Powershell, SQL
- Web: HTML, CSS, Bootstrap, React
- Databases: MySQL, PostgreSQL
- Cloud/DevOps: AWS, Docker
- Other: Algorithms and data structures, git/github (version control)

Projects

- **Grid Gambit** – Developed an online multiplayer web game for children and young adults, where players compete to maximize points by uncovering mystery tiles within a timed grid. Built with **React**, **Node.js**, and **WebSockets**, ensuring real-time gameplay and seamless user experience.
- **Restify -** A platform inspired by Airbnb, designed as a school project to allow users to list and book accommodations with ease. Built with **React**, **Django**, and **MySQL**, it provides a user-friendly interface for hosts and guests to manage listings, reservations, and interactions efficiently.
- **Frogger** - A modified version of the classic 1981 Konami game built in **MIPS Assembly**.
- **Battleship Solitaire AI** - Developed an AI-powered CSP (**Constraint Satisfaction Problem**) solver to automate solving Battleship Solitaire puzzles, leveraging advanced techniques such as **General Arc Consistency (GAC)** and **forward checking**.

Other Sections

- **Volunteer work** - Burlington Green park and trail cleanup
- **Awards** - Dean's List 2019-2020 Academic Year
- **Relevant Courses** - CSC108 - Intro to Comp Prog, CSC148 - Intro to Comp Sci, CSC165 - , CSC207 - Software Design, CSC209 - Soft Tools & Sys Prog, CSC236 - Intro to Thoery Comp, CSC258 - Computer Organization, CSC263 - Data Structures & Analysis,,CSC309 - Prog on the Web, CSC343 -Introduction to Databases, CSC373 - Algo Design & Analysis, CSC384 - Intro Artif Intell, CSC454 - Business Software

Interests

- I am an avid runner, I go on jogs daily and have done several half marathons already. I am currently training to do a full marathon soon.
- I am a passionate artist who loves drawing, particularly inspired by my fascination with architecture. I love doodling buildings, exploring different architectural styles, and capturing the unique designs that make each structure stand out.