Felix Liao

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SKILLS

Languages: Python, C++, C, Java, SQL, R, Bash, TypeScript, JavaScript, HTML, CSS, Kotlin, Rust, Dart
Technologies: NumPy, Pandas, React, PostgreSQL, Node.js, Flutter, Next.js, Bootstrap, Git, Linux

WORK EXPERIENCE

Data Scientist |*fliteX*   August 2023 – present
Python / SQL   *Oshawa, ON*

- Applied statistical models using historical flight data to predict airport arrival and departure rates

Software Engineer | *BluRoot Inc.*   January 2023 – April 2023
JavaScript / TypeScript / React / Redux   *Toronto, ON*

- Developed insurance policy and client management app extensions for storing and comparing multiple policies, uploading documents, and automating actions upon updating policies using **TypeScript** and **React**
- **Reduced API calls** by **optimizing** the usage of a **state machine** and by implementing **Redux** patterns which resulted in cutting down software rendering time by ~**1 seconds** per interaction
- Generated ~**1.5% additional revenue** and gained +**50 clients** with the apps which were sold as vertical SaaS
- **Managed projects** by improving on initial designs, planning sprints, and performing quality assurance tests

Full Stack Developer | *WSIB Innovation Lab*   May 2022 – August 2022
React / Dart / Flutter / JavaScript   *Waterloo, ON*

- Created a mobile app to submit insurance claim forms with a team of 6 developers in an **Agile** environment
- **Spearheaded** the planning and implementation of features such as navigation, animations, UX, and the connection to the backend REST API which used databases such as Firebase and MongoDB
- **Optimized** the codebase by enforcing a consistent and **modularized** coding style teamwide, which led to an **50% decrease** in loading times
- Improved the company website with React by implementing responsive app design principles

PROJECTS

journal4me | Hack the North 2022 | Won 2nd for best use of NLP
Javascript / React / CSS / Bootstrap / MongoDB / Python

- Developed a voice-to-text journaling web app using **AI libraries** and an **NLP machine learning** program to summarize and classify the mood of each entry which are saved into MongoDB
- Built the frontend with **JavaScript** and **React** using libraries such as Bootstrap and MaterialUI to create a therapeutic and minimalistic interface with a start menu, a recoding page, and an interactive mood calendar

Badminton Tryout Tracker
Java / OOP

- Developed an app to manage badminton tryouts with a scoring system to rank players based on various statistics, sorted views to display different ways to evaluate players, and classes to store player profiles
- Implemented an **object-oriented** approach to manage player statistics to help evaluate their skill level

Chess Team Project
C++ / OOP

- Built a command line chess game using **object-oriented** programming and software design patterns with **C++**
- Created multiple computer player difficulties with various movement generation methods

EDUCATION

Candidate for Bachelor of Computer Science — *University of Waterloo*   *(September 2020 – April 2025)*

Relevant Courses: Statistics, Algorithms and Data Structures, Object Oriented Development, Artificial Intelligence