Frank Li

Contact

Phone: (647) 978-5326	**LinkedIn:**	**GitHub**:
Email: f7li@uwaterloo.ca	www.linkedin.com/in/frankli0326	https://github.com/franklbh

Skills

Languages: Java, Python, C/C++, JavaScript, TypeScript, HTML, CSS, PHP
Frameworks & Technologies: React, Node.js, Express.js, REST
Database: MySQL, MongoDB

Work Experiences

Software Engineer Intern | Institute of Microelectronics of the Chinese Academy of Sciences
Beijing, China (May2022 – Aug.2022)

- Incorporated **Python** and **PyAutoGui, Subprocess, Pandas** as the framework to create an auto-login application that helps my colleagues to automatically log into Zoom every Monday at 10 A.M. to attend the weekly meeting.
- Produced a transaction analysis program with **C++,** transactions on semiconductors specifically, to calculate **Capital Gain and Loss**, and **Adjusted Cost Base** for the **annual exchange traded fund**
- Utilized pointers, linked List, object-oriented programming and **sorting algorithms**, including selection, binary search, and recursion, to organize the transactions chronologically and compute annual profits

Software Developer Intern | Trip.com (Qunar)
Vancouver, B.C. (May2021 – Aug.2021)

- **Collaborated with my colleagues** to design a responsive UI of StarTalk, Qunar's newest social platform, using **Java** with **Google Material Design** as the template
- Implemented 10+ new test cases into the auto-test script and fixed 10+ test failures for StarTalk using **Java** with **Selenium**

Data Analyst | BlockWise
Vancouver, B.C. (Jan.2021 – May.2021)

- Collected, manipulated and queried real-time Blockchain data using **MySQL** and organized it in an Excel spreadsheet
- Completed **Introduction to Blockchain Technologies** online at **INSEAD** and learned about **decentralization**, **hash functions**, **encryption, decryption, consensus**, etc.
- Provided ideas and optimized contents and potential improvements to the online Blockchain courses created by BlockWise

Projects

Snowboard Paradise – a Flexible Web App (https://github.com/franklbh/Snowboard-Application)

- Launched a **responsive** web app using **several application containers** to enable greater flexibility
- Applied **JavaScript** in both the **front-end** and the **back-end** to make the user interface interactive
- Employed **React** as the front-end framework and created reusable components and then assembled them to form the entire user interface
- Utilized **RESTful JSON** web service that uses **Express.js** as the back-end framework and **Node.js** as the runtime, which allows users to have real-time conversation
- **MongoDB** is used as the database to store the data of clients and login information. **Postman** as the API testing tool.
- Used React to consume JSON from the back-end and renders HTML.

Geese Spotter – UWaterloo Version of Mine Sweeper

- Employed **C++** to create a game similar to Mine Sweeper that has several functions, such as Hide, Clean, Tag, and Restart
- Fluent in using **Pointers** and **Dynamic Memory Allocation** and applied them in the functions
- Utilized searching/sorting algorithms that allow users to discover hidden targets
- https://github.com/franklbh/GeeseSpotter---MineSweeper

Sudoku Solver

- Programmed a sudoku solver program with **Python** that allows users to input any 9x9 unsolved sudoku, and the program solves it automatically
- Implemented the **backtracking algorithm** which utilizes recursions to choose the best number for the current grid.

Education

University of Waterloo | Candidate for Bachelor of Applied Science in Computer Engineering *Sept.2022 – May 2027*