Billy Pak Lam Lee

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EDUCATION

University of Waterloo

Ontario, Canada

Honours Bachelor of Mathematics - Fourth Year

Sep. 2020 - Aug. 2024

• Cumulative GPA: 89.83/100

• Double Major: Computational Mathematics and Combinatorics & Optimization

• Minor: Computer Science

Experience

Bolee Machine Tool Ltd.

Hong Kong

Computer Technician Intern

Apr 2023 - May 2023

- o Efficiently managed and maintained the company's Wordpress website by developing a Python program that uses Selenium to automate the process of creating, updating, and deleting products from a csv file, reducing 2 months of manual labor to just 4 hours.
- Managed the company's server system, including configuring the VPN server for remote access and upgrading the storage of the NAS server.

University of Waterloo

Waterloo, Ontario, Canada

Full Stack Developer Intern (Part-time)

Jan 2023 - Apr 2023

- $\circ\,$ Contributed in the development of a Next. js and TypeScript frontend and a Golang REST API backend for a cognitive linguistic research group's website.
- o Created responsive and intuitive interfaces using NextJS components and Material UI.
- Utilized GitLab pipeline for testing and linting to ensure optimal website performance and maintain high code quality.
- Streamlined development processes by transitioning the front-end framework from Ant Design to Material-UI.
- o Created a backend endpoint that dissociates an instance with a figure.

PROJECTS

- Biquadris C++
 - Developed a customizable Tetris game variant with adjustable board dimensions and win conditions.
 - Employed the Model-View-Controller (MVC) design pattern for a robust and maintainable architecture.
 - Utilized the Factory Method design pattern to generate unique block configurations for varying levels.
 - o Leveraged the X Window System to craft an engaging and user-friendly GUI.
- Recipe App TypeScript, NextJS, Node.is, MongoDB, Express
 - o Developed a recipe sharing web application using Next.js, Node.js, Express, and MongoDB, with user authentication and authorization features and the ability for users to save or unsave recipes.
 - o Designed and implemented the user interface using Material UI.
 - Used the useContext hook to manage global states.
 - Utilized TypeScript for improved code reliability and type safety.
- Sudoku Solver Python
 - Implemented using the backtracking algorithm.
- RunSuite Bash Script
 - Created a Bash script that checks if a given program matches the output of the given test suite.

SKILLS

- Programming Languages: Python, JavaScript, TypeScript, Go, C++, C, Bash, HTML, CSS, SQL, Ruby, R, MIPS Assembly, Racket, LaTeX, MATLAB
- Technologies/Frameworks: React, NextJS, Node.js, MongoDB, Netlify, Heroku, Redux Toolkit, Styled Components, Material UI, Tailwind CSS, Firebase, Selenium, Beautiful Soup 4, Git, npm, Webpack, Wordpress, Linux/Unix, Adobe Photoshop, MS Office Suite