Billy Pak Lam Lee

GitHub

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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*
    - 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*
    - 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.
    - 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.
    - 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.
    - Leveraged the X Window System to craft an engaging and user-friendly GUI.
- Recipe App - TypeScript, NextJS, Node.js, MongoDB, Express
    - 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.
    - 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, MaterialUI, Tailwind CSS, Firebase, Selenium, BeautifulSoup4, Git, npm, Webpack, Wordpress, Linux/Unix, Adobe Photoshop, MS Office Suite