

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.
- **Instagram Clone - Next.js, Express, Firebase Auth, MongoDB, Socket.io, Node.js**
 - Built an Instagram clone project using Next.js, Express, Firebase Auth, MongoDB, Socket.io, and Node.js, replicating the core functionality of the official Instagram application.
 - Implemented user registration and authentication features with Firebase Auth.
 - Developed user profiles that display user-specific information such as posts, followers, and following count.
 - Created a post creation feature that enables users to upload images with captions.
 - Implemented a chat function using Socket.io, allowing users to have real-time conversations with other users.
 - Integrated MongoDB for data storage and utilized Node.js for efficient server-side operations.
 - Ensured responsive design using Tailwind CSS, providing an optimal viewing experience across different devices.
- **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, Socket.io, Node.js, MongoDB, Mongoose, Styled Components, MaterialUI, TailwindCSS, Firebase, Selenium, BeautifulSoup4, Git, npm, Webpack, Wordpress, Linux/Unix, Adobe Photoshop, MS Office Suite