William Pai

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EDUCATION

McMaster University   Hamilton, ON
Bachelor of Engineering, Software Engineering Co-op   *Sep. 2020 – Apr. 2025 (Expected)*
Relevant Coursework:
Object-Oriented Programming (Java), Data Structures and Algorithms, Databases (SQL), Software Development (C),
Concurrent Programming (Java, Go, Python), Software Design, Testing & Requirements (Java)

EXPERIENCE

McMaster Software Engineering Society   May 2024 – Present
Website Developer Lead   *Hamilton, ON*
- Led the development of a **high-performance website** for a student union of **1,000+** software engineering students using **Astro**, **MDX**, **Tailwind CSS**, **TypeScript**, and **Netlify Functions**
- Leveraged **Astro** for **optimized performance rendering** and utilized **Netlify**'s **analytics** and **monitoring tools** to track user engagement and website performance, delivering a resource-rich, **user-friendly website**

SOTI Inc.   Sep. 2023 – Present
Software Developer Co-op   *Mississauga, ON*
- Developed with **Angular**, **Bootstrap**, and **.NET C#** in **full stack development** to drive advancements in XSight, allowing customers to manage diagnostic data of thousands of **iOS**, **Android**, and other **mobile devices**
- Implemented a survey app using **Entity Framework Core** with **SQL databases** and **JWT authentication**
- Proactively resolved **Jira** tickets while integrating **Jenkins** automation and implementing **Jasmine**/**Karma unit tests** to improve product stability, functionality, and code quality
- Spearheaded several major **Angular** version upgrades, refactoring code to address **package dependencies** and redeveloped the company's **UI component library**, ensuring consistency and **long-term support**

McMaster Engineering Society   May 2023 – Present
Infrastructure Technology Manager   *Hamilton, ON*
- Redesigned McMaster University's outdated booking system using **Next.js**, **TypeScript**, **Tailwind CSS**, **NextAuth**, and **MongoDB**, with a focus on usability, and speed, to be used by 5,000+ students
- Crafted a custom **UI/UX design** from scratch, increasing efficiency and optimizing the booking process

InsideDesk Inc.   May 2022 – Sep. 2022
Software Engineer Co-op   *Toronto, ON*
- Developed additional features using **Angular**, **SQL**, **AWS S3**, **Python**, **Flask**, and **REST APIs**, maintaining **25 JavaScript** and **Python** web scrapers to improve the management of **4+ million** annual dental insurance claims
- Designed and implemented a **Google Chrome extension** using **React.js**, **Material UI** library, **TypeScript** and **Auth0**, syncing with existing **software architecture** to aid in easy access to client's insurance logins
- Improved **E2E tests** using **Cypress.io**, **GitHub Actions**, and **CI/CD pipelines** to ensure minimal errors

WaveDirect Telecommunications   May 2021 – Aug. 2021
Software Developer Co-op   *Leamington, ON*
- Developed a desktop app **GUI** to parse **10,000** financial data entries into **Linux** systems using **Python** & **PyQt**
- Automated handling **2,000** DMCA infringement notices annually using **Python**, **Flask**, **Gmail API**, and **SQL**

PROJECTS

Cabpool ⧉ | *React Native, Node.js, Express.js, Google Maps API, Google Cloud Platform*
- Created a **React Native mobile application** for a taxi ride-sharing service to add carpool matchmaking
- Engineered a secure and robust, **API** backend system using **Node.js** and **Express.js** to interconnect multiple user devices, leveraging **Firebase** for encrypted data storage and management
- Composed **Software Requirements Specification** documents with **sequence diagrams**, **class diagrams** and **business events**, effectively illustrating system interactions in **software architecture** and **software design**

TECHNICAL SKILLS

Languages: JavaScript, TypeScript, Java, Dart, Python, C, C#, Go, Bash, SQL, Swift, HTML, CSS
Frameworks: React, Next.js, Astro, Angular, Vue.js, Flutter, React Native, .NET, SwiftUI, Node.js, Express.js, Flask
Tools: Git, Tailwind CSS, AWS, Google Cloud Platform, MongoDB, JUnit, Docker, Cypress.io, Figma, Adobe XD