

# Victor Liu

GitHub: [github.com/VictorL000/](https://github.com/VictorL000/)

Portfolio: [victorl000.github.io/](https://victorl000.github.io/)

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## EDUCATION

- **University Of Waterloo** Waterloo, ON  
*Bachelor of Computer Science (AI Specialization)* Sept 2022 – Present


## SUMMARY OF QUALIFICATIONS

- **Languages:** React, TypeScript, JavaScript ES6/ES7, Go, Tailwind CSS, Sass, SQL, Kotlin, Java, HTML
- **Technologies:** Node.js, Vite, Webpack, MongoDB, Docker, Three.js, Android, PostgreSQL, SQLite, Google Firestore, NFC, EC2

## EXPERIENCE

- **Software Engineer** Toronto, ON  
*WristCoin – React, Redux, SQL, Typescript, Sass, Go, Kotlin, Java, Dagger2, RxJava, RoomDB* May 2024 - Aug 2024
  - Designed an extensible **React web extension**-based integration framework, while leveraging **Kotlin Coroutines**, **MVVM** architecture, and **Google Firestore**, allowing for seamless future integrations with any external Point of Sale software.
  - Implemented an extensible pagination feature using **React Redux** and **Go** for high-traffic reports, significantly **reducing server load** and substantially **improving page load** times.
  - Developed a **Stripe** feature using **Kotlin** to support offline and tap-to-pay transactions, leveraging **dependency injection** and **reactive programming**, expanding our reach of potential customers to areas with poor connectivity.
  - Paved a foundation for the usage of an **Ultralight AES NFC** tag, utilizing **byte-level communication** to implement AES authentication, anti-tearing protection, and CMAC and CRC validation, reducing the cost of a wristband by **5x**.
- **Full-Stack Developer** Toronto, ON  
*WristCoin – React, Redux, SQL, Typescript, Sass, Go, Kotlin, Java, Dagger2, RxJava, RoomDB* Jan 2024 - Apr 2024
  - Overhauled website styling using **Sass** to ensure compatibility across all screen sizes, and modernized legacy **React** components, enhancing user experience and allowing for efficient and accessible on-site support on a mobile device.
  - Upgraded front-end codebase to **Webpack 5**, leveraging tree-shaking and minification plugins and resolving critical vulnerabilities to achieve a **10x reduction** in build time and a **37x reduction** in bundle size.
  - Deployed two new custom performance reports using **Go** and **mux**, including the creation of new **API endpoints**, **SQL** queries, and comprehensive **acceptance tests** to ensure accuracy and security.
  - Designed and implemented a robust shift tracking and reporting feature in **Kotlin**, complete with **access permissions**, data visualization, and **Bluetooth LE** printing, helping secure a crucial contract while paving a path for a premium tiered product.
- **Front-End Developer** Toronto, ON  
*Mink Capital – React, TypeScript, Redux, Tailwind CSS, Vite, SQL, Figma, Google Search Console* May 2023 - Aug 2023
  - Re-engineered an outdated company website, boosting the **average engagement time by 45%** using **React**, **TypeScript**, **Tailwind CSS**, **PHP**, and **Headless WordPress**. Implemented a responsive layout, dynamic testimonial page, and blog page.
  - Employed **Axios** with **React** and **Redux** to access WordPress API data, enabling flexible layouts and styling with **React** and **Tailwind CSS**, while maintaining user-friendly content editing.

## PROJECTS

- **NutriCart – Online Grocery Shopping Assistant**   
*Demo @ [github.com/m-chenie/NutriCart2.0](https://github.com/m-chenie/NutriCart2.0) — React, Sass, TypeScript, Postman, Vite*
  - Developed a web extension using **React** and **TypeScript** that tracks macronutrients when buying groceries online, enhancing user's shopping experience with real-time nutritional information.
  - Scraped HTML using the **chrome.tabs API** to obtain each item in the user's shopping cart, and implemented a **RESTful** nutrient lookup API using React hooks to obtain the nutritional values of each cart item.
  - Implemented a multi-stage initialization form with client-side validation to calculate personal nutritional intakes, which is compared with their cart's nutritional data and displayed to the user, providing users with personalized dietary insights.