

# Steven Bai

(+1) 416-768-2818 | [s2bai@uwaterloo.ca](mailto:s2bai@uwaterloo.ca) | [stevenbai.ca](http://stevenbai.ca) | [LinkedIn](#) | [GitHub](#)

## TECHNICAL SKILLS

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**Languages:** C/C++, Java, JavaScript, Typescript, HTML/CSS, Python, SQL, Kotlin

**Frameworks:** React, React Native, Next.js, Angular, Node.js, Express, Tailwind CSS

**Technologies:** AWS, Docker, Kubernetes, Jenkins, Firebase, Supabase, PostgreSQL, MongoDB, GraphQL, OpenAI, TortoiseSVN, Heroku, Git, Linux, Postman, Figma

## EDUCATION

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### University of Waterloo

Sept. 2022 – April 2026

*Honours Bachelor of Computer Science*

*Waterloo, ON*

- PureFacts PureScholars Award in Mathematics Recipient (2022)
- Courses: Data Structures and Algorithms, Sequential Programming, Object-Oriented Programming, Mobile Application Development, Operating Systems, Combinatorics, Graph Theory, Statistics, Calculus, Linear Algebra

## EXPERIENCE

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### Wealthsimple

May 2025 – Aug 2025

*Software Engineer Intern*

*Toronto, ON*

- Incoming intern on **Tiers/Advisory** team, building services for premium users across both frontend and backend.

### Constant Contact

Jan 2025 – April 2025

*Software Developer Intern*

*Kitchener, ON*

- Implementing secure and efficient file processing using **Amazon S3 presigned URLs** and **SQS** message queues for controlled access enforcement. Using **AWS Lambda** for event-driven processing and **AWS CloudFormation** for infrastructure automation.
- Integrated an AI-powered bulk import system processing 80M contacts/month, leveraging **AWS Bedrock** for intelligent data classification and **AWS EKS** with **Kubernetes** for scalable orchestration
- Developed unit tests for the contact imports service layer and API endpoints using **Mockito** and **JUnit5**, ensuring accurate validation of business logic and coverage for high cyclomatic complexity.

### Uncaught Exception Inc

May 2024 – Aug 2024

*Software Engineer Intern*

*Vancouver, BC*

- Built and optimized **AlgoMonster**, a platform for data structures and algorithm content, practice problems and learning tools, using **Next.js**, **Firebase** and **AWS ECS, EC2** and **S3**, scaling to **5,000+** daily users worldwide.
- Implemented **A/B testing** frameworks using **Firebase**, and integrated **Amplitude** analytics with **Hotjar** heatmaps to evaluate feature performance, increasing subscription page conversion rate by over **5 times**.
- Streamlined **CI/CD** by implementing integration testing for NextJS using **GitHub Actions** and **Docker**.
- Built AI-driven content creation pipelines using **Python**, **Pandas**, **OpenAI API**, and **Manim**, generating SEO optimized articles and videos, reducing bounce rates by **20%** and boosting YouTube traffic by **50%**.

### Rich Media

May 2023 – August 2023

*Full Stack Developer Intern*

*Toronto, ON*

- Led **Lean-Agile** development of credit card planner for **Scotiabank** and mortgage calculator for **TD Bank** using **Angular** and **Jenkins** for **CI/CD**. Used by **thousands** of daily banking and insurance users.
- Developed an asset extraction tool using **TypeScript** and **Playwright** to scrape fonts, images, and HTML from banking/insurance tool websites, saving 1 hour each time for rapid prototyping.
- Resolved **20+** critical bugs while conducting cross-device testing, with **Bugzilla** for tracking and collaborating.

### iContribute

March 2021 – August 2021

*Frontend Developer Intern*

*Ottawa, ON*

- Built a cross-platform app using **React Native** and **Firebase**, enabling 58+ partner organizations to connect with 1000+ active users for remote and in-person volunteer opportunities during the pandemic.
- Designed 15+ responsive user interfaces and components with **MUI** and **Figma**, improving **UI/UX** and gained 20+ weekly matches for volunteering.