

Steven Bai

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EXPERIENCE

Full Stack Developer — *Rich Media*

MAY 2023 - AUG 2023

- Spearheaded the development of white-label software for major Canadian clients, including Scotiabank and TD, collaborating closely with design teams to enhance user interface aesthetics and user experience using AngularJS, resulting in a **15%** increase in client engagement and satisfaction at leading banks and insurance companies.
- Streamlined client workflows by automating the customization of website frames and assets using TypeScript and Playwright for web scraping, reducing project turnaround times by **25%**.
- Operated in a fast-paced Lean-Agile environment and effectively managed client feedback loops to accelerate product iterations, resolved over **30** critical bugs over cross-platform QA testing, enhancing system reliability and performance.

Software Developer — *Freelance*

NOV 2021 - DEC 2021

- Implemented a pomodoro timer using DiscordJS for a Discord bot called [Productify](#) to promote and improve time management for server members. Reached **300+** active student users in a [Discord study server](#).

Web Developer — *iContribute*

MAR 2021 - AUG 2021

- Implemented multiple user-facing pages for the React [web portal](#), giving non-profit organizations and volunteers visibility into remote and in-person opportunities.
- Enhanced high school volunteering during the pandemic, used by **58** partnered organizations to connect with **800+** active mobile app users for volunteer opportunities.

PROJECTS

chess [[GitHub](#)]

NOV 2023 - DEC 2023

- Developed a fully-functional chess game in C++ applying OOP principles and the MVC architectural pattern to ensure accurate game state and move mechanics of chess, maintain the UI, and control flow for 2 player and AI gameplay.
- Implemented chess AI with a Minimax algorithm optimized with alpha-beta pruning, reducing computation time by **500%** to make the best move in under **2 seconds** by forecasting **5** moves ahead, achieving a **75%+** win rate against 1200 elo players.
- *Tech stack: C++, Git*

dmojstats [[GitHub](#)]

NOV 2021 - PRESENT

- Designed and implemented a ReactJS tool to enable simultaneous search, tracking, and comparison of coding contests for **160,000+** developers, increasing analysis efficiency by up to **50x** for users with extensive contest histories
- Developed an advanced search query feature using a REST API with HTTP requests to DMOJ API, enabling users to analyze performance ratings and percentile scores across multiple contests, a functionality not available on the original platform. Currently being optimized by implementing a database of **6000+** user contests and performance data to speed up querying.
- *Tech stack: React.js, Node.js, Express.js, REST api, MongoDB, Figma, Heroku*

COMMUNITY INVOLVEMENT

Unlock Hacks [[Devpost](#)]

NOV 2021 - JAN 2022

- Organized and hosted an online hackathon to encourage and educate beginners about programming. Designed, lectured and mentored at introductory workshops in Java and competitive programming for all **173** participants.
- Connected with **50+** companies, accumulating **\$800+** in sponsored prizes and **42** project submissions.

EDUCATION AND AWARDS

Honors Bachelor of Computer Science (3.9 GPA) — *University of Waterloo*

SEPT 2022 - DEC 2026

- [PureScholars Award in Mathematics](#): Excellence in high school academics (**97.3%** average) and extracurricular involvement, including multiple city-level wins in swimming and table tennis and qualified for provincial swimming competitions (OFSAA).

TECHNICAL SKILLS

Languages: C/C++, Javascript, Typescript, HTML/CSS, Java, Python, SQL

Technologies: React, Angular, Node, Express, MongoDB, Git, React Native, Heroku, Linux, Figma, TortoiseSVN