

Rafael Bocsa

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EDUCATION

Brock University

Bachelor of Science in Computer Science (Honors)

St. Catharines, ON

Sept. 2020 – Dec. 2024

EXPERIENCE

Web Developer (Intern)

Jun. 2024 – Aug. 2024

HIEC

Burlington, ON

- Designed and launched an archive system used by admins to manage 20+ programs and events for workforce development, improving content organization and reducing page retrieval time through WordPress archive blocks.
- Migrated a legacy Ruby on Rails codebase to Tailwind CSS (60% completion) through pair programming with senior developers, enhancing UI consistency empowering Ontario's future skilled trades.
- Redeveloped the policy page and user feedback workflow to meet AODA accessibility standards by writing custom JavaScript/JQUERY components in Elementor, increasing accessibility compliance and user engagement.

Software Developer (Intern)

Sept. 2022 – Dec. 2022

Government of Ontario - Ministry of Transportation

St. Catharines, ON

- Built an automated attendance tracking system that emailed Excel reports to 300+ employees, reducing manual monitoring workload by 60% using PowerApps and automated validation logic.
- Produced a proof-of-concept report on modern web architecture (Flutter, Firebase, OutSystems, PWAs) and delivered a technical seminar to 30+ public servants, guiding future modernization initiatives.
- Documented workflows, architecture diagrams, and testing steps in internal runbooks to standardize adoption of emerging technologies across the division.

Software Developer (Intern)

Jan. 2022 – Apr. 2022

Civiconnect

Beamsville, ON

- Developed and deployed end-to-end websites aiding 20+ local businesses in the Lincoln region utilizing Django, PostgreSQL, and AWS, translating business requirements into custom technical solutions.
- Engineered backend services with Django to facilitate 50% faster content updates through the admin dashboard.

PROJECTS

Fortnite Trio Builder | *Spring Boot, Supabase, Google Gemini, Docker, Oracle Cloud VM*

Oct. 2025

- Built a full-stack competitive trio evaluator platform to allow gaming fans to build out the ultimate competitive trio for upcoming FNCS tournaments.
- Using Spring Boot, React and PostgreSQL database, users can browse top trending pro players, analyze team synergy, and predict performance via Google Gemini.
- Resolved Supabase connection exhaustion by tuning HikariCP settings, fixing connection leaks through poorly built services such as repetitive queries, missing transactions and decoupling DB transactions from external API latency which improved backend reliability by 99%.
- Containerized and deployed the backend on an Oracle Cloud VM using Docker + Cloudflare Tunnels, achieving persistent HTTPS hosting with no exposed ingress points.
- Engineered Python web scraper utilizing BeautifulSoup4 gathering top 1000 pro player data displayed through a user-friendly React interface.

HabitForge | *FullStack, React, Next.js, Tailwind CSS, Firebase, Vercel*

Sept. 2024

- Led a team of 6 in developing a habit tracking application, using agile methodologies for sprint planning and task allocation and built key features with TypeScript, Next.js, Tailwind CSS and Firebase.
- Developed a ranking algorithm and implemented 60+ Jest unit tests achieving 90% test coverage, significantly improving system reliability.
- Designed and implemented 6+ core features (habit creation, tracking, group habits, notifications, speech-to-text and live leaderboards) leveraging Firebase cloud functions.

TECHNICAL SKILLS

Programming Languages: Java, TypeScript, JavaScript, C++, Python, Dart, SQL, HTML, CSS

Technologies: React, PostgreSQL, Docker, Vercel, Cloudflare, Git, Maven, Gradle, Jira, Miro, Flutter, JUnit

Frameworks: Spring Boot, Next.js, Django