Rafael Bocsa

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EDUCATION

Brock University — St. Catharines, ON
Bachelor of Science in Computer Science (Honors) — *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*
- Engineered backend services with Django to facilitate 50% faster content updates through the admin dashboard.
- 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.
- Created documentation and repeatable deployment steps to streamline the agency's future client project onboarding.

PROJECTS

Fortnite Trio Builder ⎋ | *Spring Boot, Supabase, Google Gemini, Docker, Oracle Cloud VM* — Oct. 2025
- Built a full-stack competitive trio evaluator platform using Spring Boot, React, PostgreSQL, and Docker, deployed via Vercel and Oracle Cloud VM with Cloudflare Tunnels for secure, cost-free hosting.
- Resolved Supabase connection exhaustion by tuning HikariCP pool settings, implementing transaction-pooled mode, and optimizing idle clients, improving backend reliability by 99%.
- Integrated Google Gemini to analyze team synergy and predict performance, automating competitive insights for 100+ daily users.
- 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