

# Saad Bachaoui

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## EDUCATION

### University of Ottawa

*Bachelor of Engineering, Computer Engineering; CGPA: 8.5/10*

*Expected May 2027*

- **Coursework:** Data Structures and Algorithms, Computer Architecture, Operating Systems, Digital Systems, Data Communications and Networking, Probability and Statistics, Linear Algebra

## EXPERIENCE

### Global Technical Services intern

*January 2026 - Present*

*Bombardier*

*400 Blvd Cote Vertu Ouest, Dorval, QC H4S 1Y9*

- Built Power Apps interface with SharePoint integration to centralize Service Bulletin management for 900+ records, implementing cascading dropdown logic and relational data structures to enable SB family grouping across aircraft programs
- Developed Power Query data transformation workflows to consolidate 36,000+ records from legacy systems, creating SB family lookup tables to establish primary-equivalent relationships for production migration
- Designed automated Power Automate notification system with configurable delays and distribution lists, eliminating manual stakeholder communication for Service Bulletin releases

### Post Office Clerk

*May 2024 – December 2025*

*Shoppers Drug Mart (Canada Post)*

*541 Montréal Road, Ottawa, ON K1K0V1*

- Processed 100+ packages and letters per shift, ensuring on-time delivery and 100% compliance with regulated mail procedures.
- Trained and mentored new hires on POS and store procedures, reducing onboarding time by 30%.
- Troubleshoot POS terminals, barcode scanners, and printers to quickly resolve outages and keep operations running.

## PROJECTS

### ProcrastiMate

[GitHub](#) | [Production](#)

- Built a full-stack productivity app with vanilla JavaScript, Firebase Auth, and Firestore, featuring real-time synchronization across a 2,000+ line codebase.
- Developed a cross-platform mobile version with Capacitor and offline-first support, currently undergoing Google Play Store review.
- Implemented an advanced focus timer with background audio, service-worker caching, and a responsive UI optimized for web and mobile.

*Tech: JavaScript, Firebase, Firestore, Capacitor, HTML/CSS, Service Workers, Vercel, GitHub Actions*

### Valex

[GitHub](#) | [Production](#)

- Built a real-time Kanban collaboration platform using WebSockets, enabling multi-user editing with collision detection.
- Integrated OpenAI GPT-3.5-Turbo for AI-powered task automation, reducing manual project management effort.
- Developed an interactive Three.js interface with optimized 60 fps rendering and adaptive performance for all devices.

*Tech: TypeScript, Next.js, WebSockets, Three.js, Redis, Railway, PostgreSQL, Prisma, OpenAI API*

## TECHNICAL SKILLS

**Languages:** JavaScript, TypeScript, Python, Java, SQL, HTML/CSS, Bash

**Frameworks & Libraries:** React, Next.js, Node.js, Socket.IO, Three.js, Firebase, Express.js, Prisma

**Developer Tools:** Git, PostgreSQL, OpenAI API, Vercel, Railway, GitHub Actions, Redis

**Microsoft Power Platform:** Power Apps, Power Automate, Visio, Power Query, Sharepoint