

# Alexandre Émond

Backend-Oriented Software Developer — .NET, Distributed Systems



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🖥️ **Backend & Enterprise:** C#, Java, SQL, ASP.NET Core, Spring Boot, REST, GraphQL, WebSocket, Swagger

🔌 **Distributed Systems & APIs:** REST, GraphQL, WebSocket, OAuth2, JWT, API Gateways, Stripe, PayPal, Postman

☁️ **DevOps & Infrastructure:** Docker, Kubernetes, GitHub Actions, CI/CD, Linux, Apache, Nginx, Bash, PowerShell

🗄️ **Databases:** PostgreSQL, MySQL, MSSQL, MongoDB — schema design, indexing, migrations, tuning

💻 **Frontend (supporting):** React, Blazor, Razor Pages, HTML/CSS, JavaScript, TypeScript, TailwindCSS

📱 **Mobile Development:** Android (Java/Kotlin), iOS (Swift/SwiftUI), MAUI, Flutter

🔧 **Testing & Tooling:** xUnit, NUnit, JUnit, Moq, Cypress, Git, GitHub, JetBrains, VS Code, Vim

🛡️ **System & Security:** Server administration, SSH, IAM, Encryption, Secure coding, GDPR, DevSecOps

## Selected Engineering Projects

### Drift — Architect & Lead Developer

2025–Present

- Geo-ephemeral communication platform (iOS, Firebase, .NET on Linux) designed as a distributed system with strict lifecycle enforcement and guaranteed data deletion.
- Implemented a presence-based state machine (active / dying / expired), server-side cleanup services, notification dispatching, and a rule engine (time, location, one-shot).
- Designed backend services, data models, and lifecycle orchestration with clear separation of concerns between client, cloud services, and worker processes.

### Collaborative Multi-Device Platform — System Architect & Developer

2025–Present

- Designed a cross-platform productivity system leveraging native OS integrations, widgets, background services, and synchronized APIs.
- Focused on distributed state consistency, device-aware behavior, and extensible architecture across mobile and desktop environments.

## Education

DEC – Computer Science Technology (Ongoing)

Collège LaSalle, Montréal — 2023–2026

Consistently maintained 99% GPA across all completed semesters — Top-ranked in program

Prior Studies: DEP – Carpentry (2009), Mechanical

Engineering Technology (2007–2009, unfinished)

software development, backend, distributed systems, .NET, APIs, REST, GraphQL, WebSocket, Docker, CI/CD, system design, troubleshooting, documentation, root cause analysis, process improvement, reliability, safety compliance

## Professional Experience

## **Baffinland Iron Mines (ArcelorMittal) — Ship Loader / Site Mechanical Maintenance**

Mary River, Nunavut • 2019–2023

- Maintenance, repair, and inspection of conveyors and fixed plant equipment in Arctic conditions; mechanical, hydraulic, electrical, and fuel systems.
- Executed preventive maintenance and work orders in compliance with SOPs and safety regulations (LOTO, permits); CMMS documentation.
- Performed rapid troubleshooting and zero-defect repairs under high downtime risk; root-cause analysis and corrective actions.
- Coordinated with operators, planners, and vendors to secure parts and tools while reducing turnaround time.

## **Nuera Industrial — Industrial Mechanic (Traveling Technician)**

Canada-wide • 2016–2019

- Installed, aligned, and repaired conveyor systems across multiple industries under tight schedules.
- Diagnosed mechanical faults; component replacement, belt tracking, bearings, pulleys — high autonomy.
- Completed service reports and checklists; communicated risks and next steps to clients.

## **RLM Construction — Journeyman Carpenter**

Québec • 2009–2016

- Residential, commercial, industrial, and high-end custom construction projects (including specialized structures).
- Blueprint reading, layout, framing, and finishing; site safety and code compliance.
- Coordinated trades and materials to meet schedule and budget constraints.