

Zakaria Kerouani

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Education

Polytechnic school of Montréal

Bachelor of Engineering – Software Engineering

2022 – May 2027

Montréal, QC

- **Coursework:** Data Structures & Algorithms, Database Design, Software Principles, Operating Systems

Work Experience

Ericsson

Software developer intern PoC Team

May 2026 - Aug 2026

Montreal, QC

- Developed a **real-time AI assistant** prototype that **reduced processing latency by 50%** by leveraging the **Pipecat framework and TypeScript** for **concurrent** data stream management.
- **Validated the interoperability of emerging technologies** within Ericsson's network infrastructure by designing a hybrid **TypeScript and Java architecture** integrated with modern network protocols.

Intact

Backend Software developer intern

Jan 2025 - Aug 2025

Montreal, QC

- **Designed and implemented a high-performance GraphQL** data layer, making API responses by up to **15x faster** and optimizing data retrieval efficiency.
- **Developed and implemented** new features for the policy management system, **enhancing system efficiency** through optimized backend processes using **Java and Spring Boot**.

FivesquareDesign.com

Full stack Software Developer intern

Feb 2022 - Dec 2023

Montreal, QC

- Developed and maintained **Angular** components for a complex web application, **contributing to a 20% increase in user satisfaction** through improved UI/UX.

Projects

NG Battles | JavaScript, TypeScript, Angular, NestJS

- **Developed a scalable and maintainable backend architecture** using NestJS and MongoDB, **resulting in a 20% reduction in server load** and **improved game performance by 15%**.

Fika, Sip & Sync | Typescript, Python, React, FastApi, NextJS, Supabase, Docker

- **Engineered and deployed a full-stack web application for live social events** that successfully scaled to support **160+ concurrent active users** with zero downtime by architecting a high-performance backend with **FastAPI (Python)** and a real-time frontend using **Next.js/React (TypeScript)** and **Supabase**.

Leadership and involvement

HEKA embedded Software Tech Lead | C/C++, Java, python

- **Led the development of a robust embedded software system** for a robotic arm that **increased the arm's precision and efficiency by 25%** through the implementation of advanced control algorithms and optimization techniques.

Polyorbite electrical engineering division member | Python, Raspberry pi 4B

- Developed a precise arm control algorithm, integrated a user-friendly remote, and optimized for low latency.

Skills

Languages: Java, JavaScript, TypeScript, Python, HTML, CSS, SQL, C/C++, Kotlin, C#, ruby

Frameworks: React, React Native, Angular, Node, NestJS, PostgreSQL, MongoDB, Qt, Spring, SpringBoot, GraphQL

Tools & Cloud: AWS, Google Cloud, Git, Postman, Datadog, Kafka, Docker, Kubernetes, ArgoCD, Kiro