

MOHAMED JAMEL KHIAREDDINE

Senior Software Engineer

Node.js • Next.js • React • TypeScript • GCP • Azure

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PROFESSIONAL SUMMARY

Senior Software Engineer with 6+ years of experience building scalable and reliable web applications. Experienced with Node.js, TypeScript, React, Next.js, and Angular.

Strong knowledge of backend development, system design, microservices, REST APIs, cloud platforms, Docker, Kubernetes, and CI/CD. Skilled at building production-ready software, solving complex technical problems, and working with teams to deliver high-quality solutions.

TECHNICAL SKILLS

Backend: Node.js, Express.js, TypeScript, Java, REST APIs, GraphQL, Microservices

Frontend: React, Next.js, Angular, TypeScript, Redux, Tailwind CSS, Material-UI

Cloud & DevOps: Google Cloud Platform (GCP), Microsoft Azure, Docker

Databases: PostgreSQL, MySQL, MongoDB

PROFESSIONAL EXPERIENCE

Software Engineer | Emkamed– Research & Development

January 2020 – Present | Monastir, Tunisia

Develop and maintain full-stack software solutions for fleet management, public transportation, IoT, firmware updates, digital signage, and e-commerce. Responsible for software architecture, backend and frontend development, cloud deployment, and technical improvements.

Fleet Management Platform (Tracking Emka)

Real-time vehicle tracking and telematics platform supporting **1,000+ vehicles**.

- Designed and developed scalable **microservices** for GPS and CAN-bus data.
- Built REST APIs and **WebSocket** services for real-time vehicle tracking.
- Developed backend services with **Node.js** and **PostgreSQL**.
- Built interactive maps and geospatial features with **MapLibre GL**.
- Implemented automated testing, Docker, and **CI/CD pipelines**.

Technologies: Node.js, React, TypeScript, PostgreSQL, WebSocket, Docker, Microservices, REST APIs

Public Transit Schedule Application

Real-time platform providing **GPS-based ETA information** for buses and ferries.

- Designed scalable backend services with **Express.js** and **MySQL**.
- Implemented **Redis caching** to improve performance and response times.
- Developed responsive React interfaces with **Redux** and **Material UI**.
- Built automated testing and **CI/CD workflows** using Docker.

Technologies: Express.js, React, TypeScript, MySQL, Redis, Docker, Redux, Material UI

FOTA Platform (Firmware Over-The-Air Updates)

Web platform for managing secure firmware updates across connected devices.

- Developed secure authentication and **role-based access control**.
- Built REST APIs for device management and update campaigns.
- Implemented PostgreSQL database architecture using **Drizzle ORM**.
- Developed real-time monitoring for update progress and device health.
- Added audit logging and rollback capabilities.

Technologies: Next.js, React, Drizzle ORM, PostgreSQL, Docker, Tailwind CSS, NextUI

Passenger Information System (Digital Signage)

Real-time digital signage system displaying transportation information across distributed screens.

- Integrated multiple REST APIs for dynamic content updates.
- Deployed and monitored the application on **Google Cloud Platform**.

Technologies: Flutter, Google Cloud Platform, REST APIs, Provider, Windows

E-Commerce Platform

Full-stack e-commerce platform with payments, subscriptions, and inventory management.

- *Developed scalable **REST and GraphQL APIs**.*
- *Implemented authentication, orders, inventory, and product management.*
- *Integrated **Stripe** for payments and subscription billing.*
- *Built responsive SSR/SPA features with **Next.js**.*
- *Implemented Redis caching and rate limiting for better performance.*
- *Used **Prisma and PostgreSQL** for database management.*

Technologies : Next.js, TypeScript, PostgreSQL, Prisma, Redis, Stripe, Azure

EDUCATION

Master's Degree in Software Engineering and Rapid Development

Higher Institute of Technological Studies of Sousse | Sousse, Tunisia | 2018 – 2020

Bachelor's Degree in Embedded Systems and Mobile Applications

Higher Institute of Technological Studies of Sousse | Sousse, Tunisia | 2015 – 2018

LANGUAGES

Arabic (Native) • English (Advanced) • French (Advanced) • German (A2)