

Rihab Methnani

Full Stack Engineer

Full Stack & Back-end · Microservices · GraphQL

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Available for hire · Full Stack and Back-end roles · Remote, on-site in Tunisia, or relocation

PROFILE

I'm a Full Stack Engineer with a Master's-level engineering degree from Polytechnique Sousse and three years of hands-on product work. I design back-end systems that stay maintainable as they grow: services that talk through message queues, GraphQL APIs with deliberate schema design, and codebases organised by Clean Architecture so business rules never depend on a framework.

EXPERIENCE

Computer Science Instructor

01/2025 – Present

ESPITA Digital, Sousse · Teaching

- Teaches the Programming Workshop: algorithmic thinking, problem decomposition and Python fundamentals.
- Teaches Development Frameworks: component-based web interfaces with React.js.
- Builds project-based assignments and code reviews that mirror how real product teams work.

Python · Algorithms · React.js

Software Engineer · Final-year engineering project

02/2025 – 06/2025

Dundill, Sousse · Final-year project

- Split the platform into independent NestJS services for users, orders and notifications, each with its own data and GraphQL API.
- Connected the services through RabbitMQ so events propagate asynchronously, with a dead-letter queue and automatic reconnection for resilience.
- Built the route optimization engine that orders each driver's stops on real road distances (nearest-neighbour construction, then 2-opt improvement).
- Delivered three clients on top: a role-based React back office with live driver tracking, a partner dashboard with real-time notifications, and a React Native driver app.

NestJS · GraphQL · RabbitMQ · MongoDB · React · React Native · Expo

Full Stack Developer

01/2024 – 12/2024

Dundill, Sousse · Full-time

- Built back-end APIs with NestJS and GraphQL and the matching React front end, with entities, use cases, adapters and frameworks kept in separate layers.
- Implemented a secure payment integration with Paymaster, from the client flow to the API and the provider.
- Improved NoSQL query performance through better query shapes, indexing and document structure.
- Raised release confidence with unit tests (Jest) and end-to-end tests (Cypress).
- Mentored junior interns through onboarding, code reviews and pairing.

NestJS · GraphQL · React · MongoDB · Jest · Cypress

Full Stack Developer · Freelance

03/2024 – 09/2024

Freelance, Sousse

- Designed the GraphQL API and the MongoDB schema for users, companies and projects.
- Modelled the relationships that power matching so each screen gets its data in a single query.
- Built the React front end on top of the API.

NestJS · GraphQL · MongoDB · React

Full Stack Developer · Internship

02/2023 – 08/2023

Dundill, Sousse · Internship

- Developed back-end features with NestJS and GraphQL and the corresponding React interfaces.
- Added unit and end-to-end tests to make delivery more reliable.
- The internship led to a full-time role in 2024.

NestJS · GraphQL · React · Jest · Cypress

Full Stack Developer · Final-year project

02/2022 – 06/2022

IT Gate Group, Sousse · Final-year project

- Collected humidity and temperature data from field sensors on a Raspberry Pi.
- Wrote Python algorithms for data analysis and irrigation forecasting, closing the loop from hardware to data to decision.

Python · Raspberry Pi · Sensors · IoT

Full Stack Developer · Internship

06/2021 – 09/2021

IT Gate Group, Sousse · Internship

- Developed the site with Node.js and React.js, including a reservation form.
- Implemented JWT-based authentication and server-side data integrity checks.

Node.js · React.js · JWT

SELECTED PROJECTS

Delivery Route Optimization Platform Final-year engineering project · Dundill · 2025
Three NestJS microservices exchanging events through RabbitMQ, a heuristic route engine on real road distances, live driver tracking and three client apps.
NestJS · GraphQL · RabbitMQ · MongoDB · React · React Native

Talent-Company Matching Platform Freelance · 2024 · Client project
A GraphQL API and MongoDB schema designed around matching: talents, companies and projects modelled so every screen gets exactly the data it needs in one query.
NestJS · GraphQL · MongoDB · React

Dundill Full Stack Platform Full Stack Developer · Dundill · 2024
NestJS + GraphQL APIs and a React front end organised in Clean Architecture layers, with a Paymaster payment integration and unit and E2E tests.
NestJS · GraphQL · React · Clean Architecture · Jest · Cypress

SKILLS

Languages JavaScript · TypeScript · Python · SQL · NoSQL

Back end NestJS · Node.js · Express.js · Django · GraphQL (Apollo, Hasura) · REST APIs · Swagger / OpenAPI · RabbitMQ

Front end React.js · Redux · React Native · Expo · HTML5 · CSS3 · Tailwind CSS · Bootstrap

Databases MongoDB · PostgreSQL · MySQL · Firebase

Architecture Monolith · Microservices · Clean Architecture · Event-driven design

Testing Unit testing (Jest) · End-to-end testing (Cypress)

DevOps & tools Docker · CI/CD · Git · Git flow · GitHub · GitLab

Methodology Scrum / Agile

Hardware & IoT Raspberry Pi · Sensors · Embedded systems

EDUCATION

Engineering Degree in Computer Engineering (Master’s level) 2025
Polytechnique Sousse, Sousse, Tunisia

Higher Technician Diploma, IoT & Embedded Systems 2022
ISITCOM, Hammam Sousse, Tunisia

CERTIFICATIONS

CS302: Software Engineering
Saylor Academy · Aug 2026 · 36 hours · 3.6 CEUs · IACET accredited

JavaScript Algorithms and Data Structures
freeCodeCamp

LANGUAGES

Arabic Native

French C1 · Advanced

English B2 · Upper-intermediate

German A2 · Elementary