

HOUCEM HBIRI

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PROFILE

Software Engineering student with proven experience in **full-stack development**, **mobile applications**, and **cloud deployment**. Skilled in end-to-end product development and **DevOps practices** to deliver scalable, high-impact solutions.

EDUCATION

Faculty of Sciences of Tunis

Engineering Cycle – Specialization in Software Engineering

Expected Graduation: 2026

Tunis, Tunisia

EXPERIENCE

SmartGros

Feb 2024 – Present

Lead Mobile Developer

Remote

- Sole mobile developer responsible for the **maintenance**, **continuous improvement**, and **deployment** of the SmartGros mobile app connecting wholesalers with **300+** Tunisian retailers.
- Refactored and stabilized the codebase, fixing **30+ bugs** (including **12 critical issues**), and delivered the reliable **v1.1.0** release.
- Led subsequent releases (v2 and v3), adding major features such as **product promotions**, **voice-based complaint submission**, and **post-order evaluations**, shaped by retailer feedback.

Hydatis

Jun 2025 - Aug 2025

Computer Vision Research Intern

Tunis, Tunisia

- Built a **multi-person tracking system** integrating **YOLOv8** detection with **TransReID**-based person re-identification
- Designed and tested tracking strategies (**IoU matching**, **ByteTrack**, **Memory Bank**) to mitigate ID-swapping during occlusions and when individuals re-enter the scene, improving long-term identity preservation

ConvergeINNOV

Jun 2024 - Sep 2024

Full Stack Flutter Developer Intern

Sousse, Tunisia

- Developed **VoyageQuest**, a tourism app enabling real-time reservations across **50+ local businesses**, leveraging **Flutter**, **Firestore**, and **GetX** with **cloud functions** to maintain data consistency.
- Designed and implemented both **admin and user interfaces**, supporting efficient service management, reservation tracking, and intelligent filtering by service type, rating, and location
- Integrated **OneSignal push notifications** for real-time updates and promotional content delivery to enhance user engagement.

PROJECTS

NutriSolutions – Nutrition Management Platform | Academic Project

Angular | NestJS | Flutter | AWS

- Developed cross-platform, role-based nutrition app with tailored interfaces for clients, nutritionists, and admins
- Built role-specific features including recipe browsing/filtering, consultation scheduling, availability management, and real-time messaging with **Socket.IO** and **SMTP** notifications
- Containerized application with Docker Compose and Nginx; implemented CI/CD pipeline with GitHub Actions for full automation

AWS 3-Tier Web App Deployment | Academic Project

EC2 | RDS | Auto Scaling | Load Balancer

- Deployed a fault-tolerant 3-tier architecture across **2 AZs**, achieving **99.9% uptime** and supporting **1000+ concurrent users**.
- Configured **Auto Scaling** and a **Bastion Host** to manage dynamic web traffic, reducing costs while ensuring optimal performance.
- Automated deployment using an **EC2 User Data script** with **Nginx**, reducing deployment time and eliminating configuration errors.

ACTIVITIES / LEADERSHIP

Optima Junior Enterprise | Tunis, Tunisia

Nov 2022 – Jul 2024

- * Co-organized **IPDAYS 2022** as part of the **logistics team**, guiding **200+ participants** and supporting **2 Masterclass** presentations.
- * Managed the **SmartC project** independently, taking full responsibility for **technical execution** and **client communication**.
- * Took initiative to **mentor 2 peers** in **Flutter**, enabling them to successfully transition to mobile development roles in the organization.

SKILLS

Programming Languages: C++, Python, JavaScript, TypeScript, Dart, Java, SQL

Frameworks/Libraries: Flutter (Bloc, Riverpod, Getx), Angular, React, NestJS, Spring Boot, Node.js, TailwindCSS

Developer Tools: Git, Jira, Postman, AWS, Docker, GitHub Actions, CI/CD, Kubernetes, MySQL, MongoDB, Firebase, GraphQL

LANGUAGES

Arabic (Native) — French (Advanced) — English (Advanced)