

# FARAH BEN CHIKHA

Cloud Computing Engineering | Full-Stack Development | DevOps

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## PROFILE

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Passionate Cloud Computing Engineering student at ESPRIT, driven by the challenge of building scalable systems that work in production. Hands-on experience across the full stack, from cloud infrastructure and DevOps to backend and frontend development. Proven ability to design and deliver complete systems end-to-end, from architecture to deployment. Available for an internship of 2+ months in DevOps or Full-Stack development.

## EXPERIENCE

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### Software Development Intern | ESPRIT

Summer 2025

- Built a full-stack internship management application using Power Apps, Dataverse, and SharePoint, enabling students and supervisors to submit, track, and validate internship requests through a unified interface.
- Automated approval workflows with Power Automate, replacing a manual email-based process and reducing turnaround time for internship validations.
- Delivered under Agile Scrum: sprint planning, daily standups, and retrospectives throughout the project lifecycle.

### Initiation Internship - Customer Relations | BNA - Banque Nationale Agricole

2023

- Handled customer service, MoneyGram transactions, and card operations in a regulated banking environment.

### Project Manager | IEEE ESPRIT

2025

- Managed a team of ~10 people to run the IEEE SIGHT ESPRIT stand at SDC, coordinating logistics, presentation, and visitor engagement.
- Co-led the Tech4Good presentation with a 6-person team — selected as finalists at the competition.

## PROJECTS

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### Pour la Forme - Integrated Digital Fitness Platform

Jan - Jun 2026

- Full-stack fitness and nutrition ecosystem targeting the Tunisian market - connecting athletes, nutritionists, gym managers, vendors, and event organizers on a single platform. Completed and fully deployed.
- 7 functional modules: user management (JWT auth, role-based access), sport tracking, nutrition plans, certified marketplace, appointment booking, gym subscriptions, and fitness events.
- Backend: Spring Boot with layered architecture (Controller / Service / Repository), DTOs, SOLID principles, JWT security, JUnit tests, and Postman API validation.
- Frontend: Angular (MVVM pattern) with role-based navigation and responsive UX.
- Infrastructure: deployed on Azure using containerd with a 4-tier physical architecture; developed using Agile Scrum.
- Integrated an interactive 3D gym visualization scene, allowing users to explore the gym space before subscribing.

Stack: Azure | containerd | Spring Boot | Angular | MySQL | JWT | JUnit | Postman | Three.js

### ML for Retail Decision- Making

Sep 2025 - Jan 2026

- Operational AI system converting raw retail data into actionable decisions - shifting e-commerce managers from reactive to predictive stock management.
- Demand forecasting module (Low / Med / High classification) to optimize restocking and reduce inventory holding costs.
- Real-time stockout alert system to detect shortages before they impact revenue.
- DBSCAN clustering for automated product segmentation - identifying high-value items for targeted upselling campaigns.

Stack: Python | Flask | Scikit-Learn (DBSCAN, Regression, Classifiers) | Pandas

### Event Planner - Multi-Platform System

Jan - Jun 2025

- Cross-platform event management system on Desktop (Java/JavaFX), Web (Symfony/PHP), and Mobile (FlutterFlow), connected via REST API and real-time database sync.

Stack: Java | JavaFX | Symfony | PHP | FlutterFlow | REST APIs

## **WokMaster - Chinese Restaurant Management App** | Spring Boot + Angular 2025

- Full-stack restaurant management web app with role-based authentication (CLIENT / ADMIN) via JWT and Spring Security.
- Modules: menu management (dishes by category, availability toggle), order management with real-time status updates, and user management with BCrypt password encoding.
- Integrated payment module with RIB validation (20-digit format), 4-digit PIN verification, and real-time wallet debit - full transactional flow from cart to payment confirmation.

Stack: Java 17 | Spring Boot | Spring Security | JWT | Angular | MySQL | Lombok | Maven

## **Photo Gallery - File Upload & Management App** | Spring Boot + Angular 2025

- Web applications for uploading, browsing, and managing photos with persistent server-side file storage.
- UUID-based file naming to prevent collisions; physical file deletion synced with DB record removal; full filesystem + database lifecycle consistency managed at service layer.

Stack: Java 17 | Spring Boot | Spring Data JPA | Hibernate | MySQL | Lombok | Maven

## **Hotel Management Console Application** | Spring Boot + MySQL 2025

- Console-based hotel management system with full CRUD for clients and rooms - email uniqueness validation, availability status tracking, and deletion confirmation flow.
- Clean layered architecture: Controller / Service Interface + Impl / Repository / Entity.

Stack: Java 17 | Spring Boot | Spring Data JPA | Hibernate | MySQL | Lombok | Maven

## **TECHNICAL SKILLS**

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**Cloud / Infra:** Azure, containerd, Kubernetes, Ansible, OpenStack, Heat, CI/CD pipelines

**Backend:** Spring Boot (JWT, Spring Security, JPA, JUnit), Flask, Symfony (PHP), Java 17, Python, SQL

**Frontend:** Angular (MVVM), JavaFX, FlutterFlow, HTML / CSS / JS, Three.js

**ML / AI:** Scikit-learn (DBSCAN, Regression, Classifiers), Pandas, Deep Learning (PyTorch)

**Low-Code:** Power Apps, Power Automate, Dataverse, SharePoint

**Methods:** Agile Scrum, SOLID principles, REST APIs, Git, Postman

**Languages:** Arabic (native), French C1, English B2, Chinese A1

## **EDUCATION**

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**Engineering Degree - Computer Science, Cloud Computing** | ESPRIT, Tunis 2024 — 2027

**Preparatory Cycle - Mathematics, Physics & Computer Science** | ESPRIT, Tunis 2022 — 2024

## **CERTIFICATIONS**

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- CCNA: Switching, Routing & Wireless — Cisco (2025)
- Fundamentals of Deep Learning — NVIDIA (2025)
- AI for Anomaly Detection — NVIDIA (2025)
- Data Analytics Essentials — Cisco (2024)
- AI Fundamentals — IBM SkillsBuild (2024)
- Explainable AI Tools — WEITA Workshop (2025)