







Ettalbi Omar

Software Engineering Student — End-of-Studies Internship (Business Intelligence & Dashboards)

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ABOUT ME

I build containerized, data-driven software and pragmatic dashboards. I move fast from ambiguous requirements to working POCs, then harden them with tests, CI/CD, health checks, and observability. I'm strong in Python and backend/data workflows, comfortable from the Linux shell to Docker/Kubernetes, and fluent in relational/NoSQL design. When needed, I design clean schemas and KPIs and deliver dashboards—usually custom (Python/React), and I can also ship in Power BI or Excel/VBA. My focus is clear APIs and SQL semantics, reproducible environments, and measurable impact, in service of real-world decisions.

EDUCATION

Software Engineering <i>National School of Computer Science and System Analysis (ENSIAS)</i> Last semester (current)	Present Rabat, Morocco
Technology and Sciences option <i>CPGE Settat - Preparatory School</i> Graduated	Settat, Morocco

LANGUAGES

French
Fluent

English
Fluent

Arabic
Native

SKILLS

Languages/Frameworks:

Python · TypeScript/JavaScript · Java · React · Next.js · Node.js · SQL (PostgreSQL, MySQL)

Data/ML:

Time series (Prophet, statsmodels ARIMA/SARIMA/Holt-Winters) · Feature engineering · Evaluation (MAE)

BI & Dashboards:

Power BI (Power Query/M, DAX basics, data model, RLS, drill-through, bookmarks) ·

Excel (PivotTables, charts, XLOOKUP) ·

VBA (basic macros/automation) ·

Custom dashboards: Python (Pandas + charting), React (charting libraries), KPI design & date filtering

DevOps/Cloud:

Docker/Compose · Git/GitHub · CI/CD (GitHub Actions, Drone, Travis CI) · Traefik · Linux · Observability (Prometheus/Grafana)

Design & Visualization:

Photoshop · Illustrator · CapCut (for report/storytelling visuals)

Practices:

Star/snowflake modeling · REST API design · Health checks & rollbacks · Structured logging · RBAC · Secrets mgmt · Testing/linting

Learning (currently)

Power BI **advanced DAX**, Power Query/M, **incremental refresh**, **composite models**, **RLS**, **DAX Studio & ALM Toolkit** (model perf/diffs), **Deployment Pipelines**, **SAP Analytics Cloud** (models & stories, variance/forecast, **linked analysis**), SQL window functions/CTEs, Excel **Power Pivot/Power Query** + light **VBA**.

PROFESSIONAL EXPERIENCE

Software Engineer Intern

2025

Raise Up Consulting

Internship 2025 (3 months):

Led the end-to-end delivery of the Study-Abroad Platform (public site + role-based dashboards) and hardened it for production.

Architecture & Data: Scoped the domain model (Students, Applications, Documents, Payments, Tickets). Designed the **PostgreSQL** schema, migrations, and constraints.

APIs & Backend: Built **REST** services with validation, pagination, and clear error contracts; **JWT/RBAC** for authN/authZ; basic **OpenAPI** docs; API tests with Postman collections.

Frontend: Next.js (TypeScript) dashboards and forms (multi-step intake, document upload, status tracking); pragmatic charts and admin views.

Ops & CI/CD: Containerized services with **Docker**; **GitHub Actions** pipelines (build/test/lint/image publish); env-based configs; **health checks & structured logs**; deployment runbooks.

Dashboards & KPIs (supporting): Implemented basic operational views (e.g., applications by stage, backlog) with filters/exports; documented a few KPI definitions (conversion, time-to-decision) and simple refresh notes; ready to publish to **Power BI/Excel** if required.

Platform features: Appointments (slot management, reminders), Payments (service tiers, receipts), Notifications (email/SMS), Help desk (tickets, priorities, attachments).

Full-Stack Developer

Raise Up Consulting

Internship 2024 (3 months):

Contributed across the stack to ship user-facing features with reliable delivery mechanics.

Frontend: Implemented reusable UI components and multi-step forms in **React/Next.js (TypeScript)**; integrated REST endpoints; handled client-side routing and basic state. Delivered tabular views and **lightweight charts** with filters/sorting and CSV export.

Backend & Data: Wrote data-access utilities and DTOs; assisted in **PostgreSQL** schema design (tables, indexes) and basic query optimization; created simple **SQL views** to support reporting needs.

Dev Environment & Ops: Containerized local dev with **Docker Compose**; added app/service **health checks** and standardized env configs.

Handoffs (supporting): Prepared export-friendly tables/CSVs for **Excel** and documented a few KPI definitions when stakeholders needed clarity.

2024

PROJECTS

Morocco Rainfall & Wealth Analysis

Unified geospatial-temporal dataset (admin boundaries, monthly rainfall, Relative Wealth Index) with lag/rolling features and drought/variability metrics; evaluated four forecasting approaches across 60 rolling test periods — Prophet (MAE 8.41), Holt-Winters (8.91), SARIMA (10.23), ARIMA (11.30) — and delivered a lightweight Python analysis dashboard (maps, trends, KPI cards) with documented assumptions and data lineage.

Tools: Python (Pandas), Prophet, statsmodels (ARIMA/SARIMA/Holt-Winters), reproducible notebooks

Monolith → Microservices Migration Framework

AI-assisted framework that analyzes monolith boundaries and scaffolds microservices with a container-first approach. Generates per-service Dockerfiles/manifests, baseline REST stubs and tests, API-gateway routes, and health checks, with a local Compose runner to accelerate POC→MVP hand-off.

Tools: Python, LLM (DeepSeek), **MCP (Model Context Protocol) tools**, Docker, Kubernetes, **Google ADK**

2025

Office Equipment Management Tool

Web app for asset tracking and maintenance with clear service boundaries and strongly typed API contracts. Delivered an asset register plus maintenance request flows (create → status updates → history), with validated, paginated REST endpoints and a responsive React UI in TypeScript. Dockerized for dev/prod parity and wired to CI/CD for reliable releases.

Tools: React (**TypeScript**), Spring Boot, REST APIs (**OpenAPI/typed DTOs**), Docker, GitHub Actions (CI/CD)

News & Blogging Website

Content site for articles/news with automated deployments.

Tools: WordPress, PHP, JavaScript, Docker, GitHub Actions (CI/CD)

Data Analytics & Insights Pipeline

Automated ingestion from multiple APIs, transformation with Pandas, and scheduled insights dashboards (idempotent jobs, schema checks).

Tools: Python, Pandas, Google/Taboola APIs, Docker, GitHub Actions (CI/CD)

OTHER INTERESTS

Extracurricular

- Founder & Lead — ENSIAS
Radio (student club)
@ensiasradiohq

Hobbies

- Audio processing
- Embroidery