

ESSALHI Oussama

AI & Data Science Engineering Student

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01 — PROFESSIONAL SUMMARY

5th-year AI & Data Science engineering student at EMSI Rabat. Professional internship experience in multi-agent AI and LLM integration, complemented by machine learning, computer vision, Big Data and MLOps projects. Seeking an end-of-studies internship in AI/Data.

02 — TECHNICAL SKILLS

AI & Machine Learning : Python · PyTorch · Machine Learning · Deep Learning
Generative AI & NLP : Generative AI · LLM · RAG · NLP · Multi-agent Systems
Computer Vision : Computer Vision · Attention U-Net · MobileNetV2
Big Data & Data : Apache Spark / PySpark · SQL
MLOps & Development : MLflow · DVC · Docker · Git / GitHub · Linux · REST APIs
Also studied : Scikit-learn · TensorFlow / Keras · NumPy / Pandas · Hadoop / MapReduce

03 — PROFESSIONAL EXPERIENCE

REDAL 2026
AI / Data Intern 1.5 months

- **HERMES BlueTeam** : Designed a multi-agent AI platform for BlueTeam/SOC analysis of structured events.
- LLM integration, Docker / Linux, MITRE ATT&CK mapping and a Suricata demonstration; functional validation. 9 operational agents ; 17 project tests.

TRAGEM — Rabat 2025
Full Stack Developer Intern 1 month

- Mini ERP for customers, orders and deliveries; chatbot, React, Node.js, REST APIs and a relational database.

Trésorerie Générale du Royaume — Rabat 2024
Developer Intern 1 month

- Litigation management application for legal files, regulatory deadlines and automatic notifications.

04 — EDUCATION

EMSI, Rabat 2024–2027
Engineering degree, Artificial Intelligence & Data Science · 5th year

Institut NTIC · Specialized Technician, Full Stack Web Development · 2022–2024

Lycée Moulay Ali Chrif · Baccalaureate, Physical Sciences · 2021–2022

05 — SELECTED PROJECTS

BrainSeg AI · PyTorch · Attention U-Net · BraTS 2020
Brain tumor segmentation on BraTS 2020. **Average Dice : 0.8180** (project evaluation).

PrimaryTeachingSMA · CrewAI · LangChain · ChromaDB · Claude
Educational exercise generation with LLM agents and RAG. **Reported average cost / run : \$0.038** (reported estimate, variable).

PneumoScan AI · MobileNetV2 · Chest X-Ray Pneumonia
Chest X-ray classification. **Validation accuracy, epoch 8 : 81.25%** (only 16 images, not generalizable).

Fraud Detection MLOps · Random Forest · MLflow · DVC · Git
Experiment tracking and versioning (educational project). **Synthetic transactions : 5 000.**

06 — LANGUAGES

Arabic · French · English