# Mohamed Sofiene Kadri

# Software Engineer/Data Scientist

ms.kadri.dev@gmail.com \ +216 58 034 395 in mohamed-sofiene-kadri \ github.com/KadriSof

O Tunis, Tunisia

#### **SKILLS**

Programming Languages: Python, Java, SQL, R.

Backend Frameworks: FastAPI, Django, Streamlit, Spring, Hibernate, LangChain, LlamaIndex, Haystack.

**Data & AI/ML Tools:** PySpark, Pandas, Scikit-learn, Tensorflow, Keras.

Data Visualization & Analytics: Tableau, PowerBI, Matplotlib, Seaborn, Plotly.

**Cloud Platforms:** Azure (incl. Azure Databricks), Google Cloud Platform (GCP).

**DevOps & Orchestration:** Git, Poetry, Uptrace, OpenTelemetry, Prometheus, Maven/Gradle.

Databases: MySQL, Postgress, MongoDB, Redis, Unity Catalog (Databricks).

#### PROFESSIONAL EXPERIENCE

## AI/ML Software Engineer

09/2024 – present | (Remote), France

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- <u>LegalTech</u>: Developed a metadata extraction algorithm for legal documents, improving accuracy by 30%.
- AI Evaluation: Designed and implemented a benchmarking tool that combines exact matching and **heuristic approaches** to evaluate model outputs.
- **ERP Forecasting**: Built and integrated a **sales and purchase forecasting module** for an ERP system to enhance business planning.

#### **Data Scientist**

06/2024 – present | (Remote), Croatia

VendueTech

- Data Engineering: Designed and built scalable ETL pipelines to transform real estate auction data from the **bronze** to the **gold layer** using Databricks.
- <u>Data Analytics</u>: Developed monitoring dashboards in Databricks to supervise pipeline performance, ensure data quality, and elaborated **analytics reports** with actionable market insights for stakeholders.
- AI Engineering: Developed an automated LLM-powered application to extract structured data for data augmentation tasks, achieving over 87% accuracy.

#### **Software Engineer**

01/2023 – 01/2024 | Tunis, Tunisia

Optoscopia

- Computer Vision: Designed and integrated asynchronous image processing pipelines for microscopic imaging in a CASA (Computer-Aided Sperm Analysis) system, reducing analysis time by over 40%.
- Backend Engineering: Developed four core software modules and designed the relational database schema to ensure seamless integration and efficient data storage.
- Machine Learning Research: Investigated the use of t-SNE and UMAP algorithms for unbalanced multiclass clustering in sperm morphology classification tasks.

#### Other Professional Experiences

2018 - 2023

- Data Science Instructor, GOMYCODE Tunisia (Jul Dec. 2022): Delivered full-cycle data science training to over 24 students, covering Python, SQL, machine learning, and real-world project development.
- Activity Manager, OTCS (NGO) Tunisia (Apr. 2021 Feb. 2022): Led the TRACE Community Empowerment Program, managing stakeholder coordination, project monitoring, and capacity-building training initiatives.
- Electronics Engineer, FEMTO-ST Institute France (Jul. 2018 Feb. 2019): Designed and assembled a PCB prototype for piezoelectric signal conditioning using Altium Designer and micro SMT soldering for sensor R&D applications.

### **EDUCATION**

# Research Master's Degree in Control Engineering

National Higher Engineering School of Tunis (ENSIT)

- <u>Specialized in</u>: Computer Vision & Machine Learning
- **Score**: 72.50% (ECTS)

## **Bachelor Degree Electrical Engineering**

National Engineering School of Carthage (ENICarthage)

<u>Specialized in</u>: Electronics & Digital Signal Processing

<u>Score</u>: 86.38% (ECTS)

09/2014 - 11/2016 | Tunis, Tunisia

09/2011 - 06/2014 | Tunis, Tunisia