

# **Walid Labidi**

**Senior AI Engineer | GenAI & Agentic IA**

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## **Profile Summary**

Senior AI Engineer with 10 years of hands-on experience in Artificial Intelligence and Machine Learning, including predictive AI, MLOps, and cloud-native AI deployments, focus on Generative AI, LLMs, and Agentic AI systems. Proven ability to design, deploy, and scale end-to-end AI solutions in production environments, combining technical excellence with strong client-facing and consulting skills. Experienced in translating business objectives into robust, secure, and scalable AI applications across public and private sectors in Europe and Africa.

## **Core Competencies**

- **AI & Machine Learning:** TensorFlow, PyTorch, scikit-learn, Keras, XGBoost, LightGBM, CatBoost, NLP, Computer Vision
- **Programming & Data:** Python, SQL, NoSQL, Pandas, NumPy, Jupyter, Power BI
- **Generative AI:** LLM-based assistants & chatbots, RAG systems (FAQ/domain Q&A), prompt engineering, and API integration.
- **Agentic AI:** tool-using agents and workflow/multi-agent orchestration (LangGraph, CrewAI), with traceability and error handling.
- **MLOps & Deployment:** AI model APIs (FastAPI, Flask), Docker, Kubernetes/OpenShift, CI/CD, model monitoring, governance, AI-as-a-Service.
- **Cloud Platforms:** Azure (Azure AI), AWS (SageMaker), Google Cloud (Vertex AI).
- **Soft Skills:** Project leadership, Agile/Scrum management, client collaboration, technical reporting

## **Professional Experience**

**Senior AI Engineer - Smart Ways Innovation**  
**Nov 2019 – Present / Sfax, Tunisia**

- Lead AI-driven projects in fraud detection, behavioral analysis, and data intelligence for public and private sectors.

- Designed and deployed end-to-end AI solutions for public and private clients, including predictive ML models and Generative AI chatbots aligned with business objectives.
- Led client-facing technical engagements, gathering requirements, defining AI strategies, and ensuring production readiness through MLOps, monitoring, and governance.
- Developed LLM-based assistants and Agentic AI workflows (LangGraph, CrewAI) over the last 2 years, focusing on orchestration, automation, and decision support.
- Supervise Agile teams delivering digital transformation solutions in social protection and logistics sectors.
- Coordinate training programs on AI tools, and cloud architecture for engineers and corporate teams.

***Senior IA & IoT Engineer – Kouka France***

***May 2024 – Dec 2024 / Remote (France & Gabon)***

- Integrated IoT sensors and LoRa gateways with Azure IoT Hub for predictive maintenance and fraud analytics.
- Configured TTI LoRaWAN, Grafana dashboards, and secure MQTT data pipelines for industrial monitoring.
- Provided technical consultancy for AI-based anomaly detection and system optimization.

***IoT Engineer & AI Consultant – Intensive Consulting***

***May 2016 – Nov 2019 / Sfax, Tunisia***

- Led IoT and AI solution development for logistics and industrial clients, integrating cloud and edge data analytics.
- Developed intelligent vision systems for quality control and anomaly detection using machine learning algorithms.
- Supervised software architecture, team coordination, and Agile sprint delivery.

- Designed cloud-based platforms (Firebase, Google Cloud) for real-time IoT data visualization and reporting.

***Software & Data Developer - Adopt Formation***

***May 2010 – Mar 2016 / Sfax, Tunisia***

- Developed embedded systems and robotics prototypes using Raspberry Pi, Arduino, and Python.
- Designed and managed SQL databases for enterprise and educational applications.
- Built dynamic web solutions with PHP, MySQL, and responsive front-end integration.
- Delivered technical training on web development and embedded systems for engineering students.

## **Consulting & Expert Missions**

- ***AI & Digital Transformation Consultant*** - Groupe Atua Junior / Ministry of Mines (DRC) (Mar 2022 – Aug 2024): Designed an AI-powered social aid management and fraud prevention platform.
- ***Senior AI Consultant*** - University of Sfax / LaMaCoP Lab (Nov 2023 – Jun 2024): Developed AI-based anti-counterfeiting systems using QR and facial recognition.
- ***AI & Fraud Detection Expert*** - Tunisian Post (Apr 2021 – Aug 2021): Implemented early fraud detection models using emotion and iris recognition.
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## **Education**

- ***Master's in Computer Science*** - University of Sfax, Tunisia (2009 – 2011)
- ***Bachelor's in Computer Science*** - University of Sfax, Tunisia (2007 – 2009)
- ***Advanced Technician Diploma in IT & Communication*** - University of Sfax, Tunisia (2004 – 2007)

## Certifications

- *Data Science with Python* - IBM Cognitive Class (2023)
- *Deep Learning for Computer Vision* - NVIDIA (2019)
- *Digital Manufacturing & Industry 4.0* - Alison (2024)
- *AWS IoT & Cloud Solutions* - AWS (2022)
- *Internet of Things* - Alison (2021)

## Languages

- *Arabic*: Native
- *French*: Fluent C2
- *English*: Professional Working Proficiency C1