



Achraf Rachid

Industrial Systems & Manufacturing Intelligence Engineer

contact@achrafrachid.com • +212 698 694 045

achrafrachid.com • [linkedin.com/in/achrafrd](https://www.linkedin.com/in/achrafrd)

Casablanca, Morocco

PROFILE

Industrial and automation engineer with hands-on experience integrating data acquisition, SCADA supervision, and AI-driven analytics in production environments. Currently contributing to an AI validation platform at Capgemini Engineering, with prior exposure to real-time power monitoring and industrial protocol integration at OCP. Led a university robotics club and developed an end-to-end vision-guided cobot sorting cell with UR5 for automated quality control. Master's degree in Factory of the Future technologies from UM6P covering MES, Industry 4.0, and systems engineering, ready to support manufacturing execution, production monitoring, and continuous improvement initiatives.

EDUCATION

Master's, Industrial Technologies for the Factory of the Future (TIUF) Sep 2024 to Aug 2026
Université Mohammed VI Polytechnique, Ben Guerir

Smart factories, automation, Industry 4.0, MES integration, ISA-95, data-driven industrial systems, systems engineering (SysML, MBSE).

Bachelor's, Electrical Engineering and Industrial Computing (GEII) 2020 to 2024
Faculté des Sciences et Techniques (FST), Mohammedia

PROFESSIONAL EXPERIENCE

Engineering Intern, AI & Systems Feb to Aug 2026 (6 months)
Capgemini Engineering, Casablanca

- Built an AI pipeline automating end-to-end test validation, from natural-language intent to simulator execution and report generation, reducing validation time by 96 %.
- Coordinated multi-team planning and interface management across a platform-wide systems engineering effort.

PLC & Digital Systems Intern Jul to Sep 2025 (3 months)
OCP Ben Guerir, Morocco

- Designed and built a Power Monitoring System acquiring real-time equipment data via IEC 61850, Modbus, OPC-UA, and Profinet into a centralised database for KPI tracking and drift detection.
- Developed a web-based supervision dashboard with live measurements, trend analysis, and threshold alerts per device across the electrical distribution network.

Innovation Intern Apr to Jul 2023 (4 months)
Capgemini Engineering, Casablanca

- Designed an IoT detection system using ML classification on embedded sensor data with real-time acquisition and automated alerting.

RELEVANT PROJECTS

Ignition SCADA, Batch Process Supervision: Configured dynamic synoptic screens, prioritised alarm pipeline with acknowledgement, trend charts, and tag historisation into MySQL, connected to a simulated PLC via Modbus TCP.

AI-Powered Industrial Monitoring System: Real-time platform acquiring energy and production data from field devices, tracking KPIs against thresholds, and running anomaly detection (LSTM, autoencoder) to flag deviations and support condition monitoring. Deployed with live demo.

Vision-Based Robotic Sorting Cell (UR5): End-to-end Industry 4.0 cell where a camera captures parts on a conveyor, a vision model classifies conforming vs. defective items, and a UR5 cobot executes pick-and-place to the correct bin without human intervention.

SKILLS

Industrial & Automation: TIA Portal (Siemens) • Unity Pro (Schneider) • Ignition SCADA • IEC 61850 • Modbus • OPC-UA • Profinet • Ladder • Grafset/SFC • Structured Text

MES & Industry 4.0: ISA-95 • IEC 62264 • RAMI 4.0 • MES integration • production KPIs • OEE • MBSE • SysML • V-Model

AI & Data: Generative AI • LLMs • Agentic AI • Computer Vision • Scikit-learn • Pandas • Power BI • Excel

Programming & Tools: Python • JavaScript • React • SQL • PostgreSQL • Git • Docker • REST APIs • Linux

LANGUAGES

Arabic Native • **English** Advanced (IELTS Certified) • **French** Upper Intermediate (DELFI Certified)

LEADERSHIP

President, Cyborgs Robotics Club, UM6P 2024 to 2025
Led a multidisciplinary team across robotics and IoT projects; coordinated Science Week showcases (1000+ visitors) and teacher-training outreach workshops.