

Mohamed Helmi Lakhder

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EDUCATION

National Institute of Applied Science and Technology <i>Engineer's Degree, ICT</i>	Sept. 2024 – Present
Higher Institute of Information Technologies and Communications <i>B.S. IoT, Embedded Systems GPA: 4.0/4.0</i> <ul style="list-style-type: none">• Valedictorian for the 2021/2022 and 2022/2023 Classes	Sept. 2021 – May. 2024

MAIN TECHNICAL SKILLS

- **Programming Languages:** JavaScript, TypeScript, Python, C++, VHDL
- **Frameworks & Libraries:** React.js, Next.js, Angular, Nest.js, Express.js, Django, FastAPI, Spring Boot, Flutter
- **Databases:** MySQL, PostgreSQL, SQL Server, InfluxDB, Neo4j
- **Machine Learning & AI:** Machine Learning Fundamentals, Deep Learning, Transformers, LLMs, RAG, Embeddings
- **IoT & Embedded Systems:** ESP32, STM32, PIC18, PSoC, Node-RED, MQTT, LabVIEW
- **Big Data:** Apache Hadoop, Apache Spark, BigSQL
- **Cloud & DevOps:** Google Cloud Platform (GCP), Docker, Apache Airflow, Ansible, Prometheus, Grafana, Telegraf

EXPERIENCE

Biotyl AI · Full Stack Data Engineer <i>Summer Internship</i>	Jul. 2025 – Aug. 2025 Bengaluru, India . Remote
<ul style="list-style-type: none">• Contributed to a multi-AI agent system and oversaw data workflows, generating actionable clinical and regulatory insights while developing a deep understanding of healthcare business strategies, FDA processes, and biotech operations.• Keywords: React.js, FastAPI, LangGraph, Apache Airflow, Docker, MongoDB, SCD	
Novencia Group · Full Stack Developer <i>End of Studies Internship</i>	Feb. 2024 – May. 2024 Montplaisir, Tunis . On-site
<ul style="list-style-type: none">• Collaborated with a team of four to develop a web and mobile SaaS solution for HR, providing both generic and personalized features such as time-off and attendance, supported by a back-office application to track and monitor client activities.• Keywords: Next.js, Flutter, Express.js, Redux, MongoDB, Tailwind CSS	
MAE Assurances · Back-end Developer <i>Summer Internship</i>	Jul. 2023 – Aug. 2023 Ariana, Tunis . Hybrid
<ul style="list-style-type: none">• Created a platform to facilitate interactions and transactions in the insurance domain.• Keywords: Face Recognition, Django, PostgreSQL, Bootstrap, Chart.js, Prism.js	

PROJECTS

Tunisia Job Recommendation System	Dec. 2025
<ul style="list-style-type: none">• Built an automated system that scrapes job postings from LinkedIn (Tunisia) and matches CVs with jobs using cosine similarity for semantic search, including CV parsing and skill extraction.• Keywords: FastAPI, Next.js, Apache Airflow, PyTorch, sentence-transformers/all-MiniLM-L6-v2, Llama 3.1, Google Cloud Run	
Classification of Cardiac Anomalies from ECG Signals	May. 2025
<ul style="list-style-type: none">• Collaborated in a 4-person team to develop a machine learning system classifying cardiac anomalies from ECG signals, including preprocessing, feature extraction, and model training.• Keywords: Next.js, FastAPI, Random Forest, SVM, KNN, Decision Tree, MIT-BIH Arrhythmia	
Cho3la	Dec. 2023
<ul style="list-style-type: none">• Developed a flame and gas detection system with a 4-person team using ESP8266 NodeMCU, enabling real-time monitoring and notifications. Data was published via MQTT to a Node-RED dashboard and sent to Telegram users.	