Mehdi Cherif

Software Engineering Student

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Education

National Institute of Applied Science and Technology
Software Engineering — *September 2020 - October 2025*

Experience

Full-stack engineering intern — February 2025 - August 2025
Workerbase GmbH — *Munich, Germany*

- Built and deployed configurable AI agents for troubleshooting and data collection, reducing machine downtime and improving worker efficiency across factories.
- Integrated agent APIs and SDK functions into the Workerbase platform, enabling real-time data retrieval, task automation, and conversational interfaces with plant systems.
- Designed reusable AI workflows for tasks like documentation, analytics, and error resolution, ensuring scalable and secure integration within industrial environments.

Software Engineer — June 2024 - December 2024
Mindbay Technologies — *London, UK*

- Enhanced a high-performance web application by optimizing API calls, reducing server response times, and implementing caching strategies, resulting in a 50% performance boost.
- Created features for generating summaries, aiding users in tracking their progress and outcomes.
- Integrated an LLM to facilitate user interaction through sessions, improving user support.

Software Engineer Intern — July 2023 - August 2023
Technozor — *Tunis, Tunisia*

- Built a web application for drone control using Flask, ReactJS, ROS to enhance agricultural drone operations.
- Integrated YOLO-based computer vision algorithms for accurate tree and farm detection.

Projects

'9anounGPT': AI Lawyer Assistant

- Engineered a chatbot using Retrieval-Augmented Generation, enhancing legal consultation efficiency.
- Integrated the chatbot into a law forum website, facilitating user engagement and discussion.
- Implemented appointment scheduling features, streamlining user interactions with lawyers.

Tunisian Water Level Prediction

- Established a Time Series model predicting water levels in Tunisian dams, aiding water resource management.

CO2 Emission Prediction in Rwanda

- Built a LightGBM regression model to forecast CO2 emissions, supporting environmental policy decisions.

Traffic Signal Optimization System

- Designed a system using YOLO and GRU to optimize traffic light duration, reducing traffic congestion.

Languages

English (Proficient), French (Proficient), Arabic (Native)

Technical Skills

Programming Languages: JavaScript, Python, Java, C, C++, PHP
Frameworks: NextJS, ReactJS, Angular, NestJS, Flask, Django, ROS
Message Brokers: Apache Kafka, RabbitMQ
Developer Tools: Git, Docker, Kubernetes