

Khelifi Alae

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in Khelifi Alae 🌐 github.com/AlaeKhelifi 🌐 Portfolio

Profile

Master's student in Artificial Intelligence. Experienced in deep reinforcement learning, computer vision, and real-time data pipelines. Passionate about applying AI to solve real-world problems through hands-on projects and collaborative development.

Degrees

Bachelor's Degree Information Systems and Industrial Logistics	UMBB 2022-2025
<ul style="list-style-type: none">focused on information systems, database management, programming, and industrial process automation, with practical experience in project-based learning and system design.	

Master 1 in Artificial intelligence - Present	UMBB 2025-2026
<ul style="list-style-type: none">Relevant coursework: <i>Advanced algorithms, Machine learning, Advanced Database systems, Computer Vision, Cloud computing.</i>	

Education

Master in Artificial intelligence (M1) -Present -CS Departement-	UMBB 2025-2026
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- Advanced Algorithms, Machine Learning, Computer Vision, Deep Learning, Cloud Computing, Advanced Database Systems.

3rd Year Bachelor's Degree -CS Departement-	UMBB 2022-2025
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- Program focused on information systems and industrial logistics, involving programming, database design, web development, and data analysis, with a final project on ai model (Final project graded 17/20).

High School Diploma - Mathematics Option Zemmouri El-djadida High School	Zemmouri 2022
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- Average obtained: 14.83.

Projects

Reinforcement Learning for Autonomous Lunar Landing GitHub Demo Grade: 17/20	February 2025
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- Benchmarked Q-Learning, DQN, and PPO algorithms; PPO achieved **91% success rate** with **43% faster training** than DQN, demonstrating superior sample efficiency and stable policy updates
- Implemented CNN-based DQN with experience replay and Actor-Critic PPO architecture for visual state space (84×84 frames) – *Python, PyTorch, OpenAI Gym, OpenCV*

Real-Time E-Commerce Analytics Pipeline GitHub	November 2025
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- Architected event-driven pipeline with Apache Kafka processing **10,000+ orders/hour**, reducing latency from 24hr batch to **<5 sec real-time** through stream processing and aggregation

- Containerized with Docker Compose (Kafka, Zookeeper, PostgreSQL, Streamlit) – *Python, Pandas, Docker*

Breast Cancer Classification with Machine Learning

October 2025

GitHub

- Developed KNN model achieving **96.5% accuracy** for tumor diagnosis; applied PCA reducing features 30→10 while maintaining 95%+ accuracy and **3x faster inference**
- **Technologies:** Python, scikit-learn, Pandas, NumPy, Matplotlib, PCA

Automated Exam Scheduling System

December 2025

GitHub | Live

- Built constraint-based scheduler for **2,000+ students** using genetic algorithm, reducing planning time from **2 weeks to 15 min** – deployed on Railway, piloted by CS department Spring 2025
- **Technologies:** Python, Streamlit, MySQL, Genetic Algorithms, Railway

Skills

Soft skills: Communication, Problem Solving, Teamwork, Adaptability.

Proficient: Python, PyTorch, Machine Learning, Reinforcement Learning, Git/GitHub, SQL

Experienced: TensorFlow, OpenCV, Docker, Apache Kafka, Streamlit, MySQL, C/C++

Familiar: JavaScript, Node.js, Flask, MongoDB, R, Java

Languages

• **French:** Fluent

• **English:** Fluent

• **Arabic:** Native language

Objective

Master's student in Artificial Intelligence seeking internship in Machine Learning, Data Engineering, Software Development. Hands-on experience with deep reinforcement learning , distributed data pipelines , and full stack development. Adaptable and eager to contribute across technical domains.