

Mehyar MLAWEH

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SUMMARY

Passionate about artificial intelligence and data science research, I combine scientific rigor and technical expertise to develop innovative solutions.

EXPERIENCE

PhD Researcher, LAMSADE, Université Paris-Dauphine – PSL, Paris, France	Oct 2025 – Present
Thesis Topic: Monte Carlo Tree Search for Molecule Design. Research focuses on designing 3D structures of RNA and proteins to explore new molecule architectures for drug discovery.	
GenAI Engineer, Wealthy-Technology, Paris, France	Jun 2024 – Present
Keywords: big data, medical imaging, image-text, AWS Cloud, RAG, automation, LLM deployment, vector databases, end-to-end AI solutions.	
Research Intern, LAMSADE, Université Paris-Dauphine – PSL, Paris, France	Feb 2025 – Aug 2025
Keywords: RNA inverse folding, bioinformatics, sequence prediction, computational modeling.	
Python Instructor, Université Paris-Dauphine, Tunis Campus	Summer 2024
Research Intern, Institut de Recherche en Informatique de Toulouse (IRIT)	May 2024 – Jun 2024
Keywords: natural language processing (NLP), transformers (PLMs), legislative documents.	
AI Engineer (Freelance), Upwork	Nov 2022 – Present
Keywords: AI engineering, data analysis, automation tools, Simulink, Python scripting, Docker.	
Research Intern, GRIFT CRISTAL Laboratory, Tunis	Jan 2023 – Jun 2023
Keywords: density estimation, model evaluation, neural networks, teamwork.	
Data Analyst, Gammal Tech, Egypt	Jun 2022 – Sep 2022
Keywords: course creation, C/C++, database management, data extraction, data visualization, Power BI.	

PROJECTS

Medical Image Captioning	Non open source
Keywords: medical imaging, caption generation, vision-language models, AWS, vector databases, fine-tuning.	
PluginKernel	Demo
Keywords: density estimation, kernel methods, PlugIn smoothing algorithm, Python package.	
Twitter Trend Analysis	Non open source
Keywords: sentiment analysis, Random Forest, visualization, public opinion, 15,400 tweets.	
NER Resume Dataset	Demo
Keywords: NER, dataset, annotated resumes, JSON, automated selection.	
Maze Exploration Strategies	Demo
Keywords: Q-learning, exploration-exploitation, maze navigation, experiments.	
Breast Cancer Diagnosis	Demo
Keywords: ML models, binary classification, predictor analysis.	

EDUCATION

- 2023 - 2025 Master's in Artificial Intelligence and Data Science**
Université Paris Dauphine-PSL
Keywords: Deep Learning, Time Series, Monte Carlo Methods, Optimization, NLP, Generative AI, Graphs, Bayesian Networks, Computer Vision, NoSQL, Azure.
(Grade: 15.74/20)
- 2020 - 2023 Bachelor's in Management Information Systems**
IHEC Carthage
Keywords: Java, OOP, SQL, Web Development, OLAP, Power BI, Python, Talend, ClickView, Machine Learning.
(Grade: 16.79/20)
- 2019 - 2020 Baccalaureate in Mathematics**, Lycée Pilote de Gafsa
(Grade: 16.31/20)

PUBLICATIONS – UNDER REVIEW

- Mlaweh, M., Alaya, I., & Cazenave, T. (2025). *BeerNA: Tertiary Structure-Based RNA Inverse Folding Using Artificial Bee Colony*. Submitted to **AAAI Conference on Artificial Intelligence (AAAI-26 Workshop in Drug Discovery)**.
Keywords: RNA Structure, RNA Design, Swarm Intelligence, Artificial Bee Colony.

AWARDS

- First Place, Hackathon on "Airbnb and the Olympics."
- Second Place, Hack for Care and Culture with AI.
- Valedictorian, Master's in Artificial Intelligence and Data Science, Université Paris Dauphine.

SKILLS

- Programming Languages:** Python, Java, C++, SQL, R, MATLAB
Data Science & Machine Learning Tools: PyTorch, Scikit-learn, fastAi, Pandas, NumPy, Flask, Streamlit, Gradio, Cloud: AWS, Google Cloud Platform (GCP)
Deep Learning Techniques: Transformers (e.g., BERT, GPT, CLIP, BLIP, LLaMA), GenAI, RAG, Prompt Engineering, Vector Databases
ETL: ClickView, Power BI, Talend