BAIM Mohamed Jalal

+33 765294231 — mohamedjalalbaim@gmail.com — linkedin.com/in/mohamedjalalbaim/ — github.com/Jalalbaim

Education

MSc, École Polytechnique — AI & Data Science, Applied Mathematics & Statistics **Sep. 2025 – Dec. 2026**
Relevant Courses: Machine Learning, LLMs, eXplainable AI, Generative Models, Cloud Computing, Laws & Ethics of AI.

National Yang Ming Chiao Tung University, Taiwan **Sep. 2024 – Jan. 2025**
Exchange Semester in Artificial Intelligence. GPA: 4.24/4.3

MEng, Télécom Saint-Étienne — Computer Science **Sep. 2022 – Aug. 2025**
Engineering Degree in Computer Science. Major: Computer Science – Minor: Big Data

Experience

BNPParibas **Mars. 2026 - Present**
AI Engineer *Paris*

- Developed a compliance framework mapping EU AI Act requirements into testable technical criteria for LLM-based agentic systems.
- Designed and evaluated guardrails for agentic AI systems, including prompt-injection defenses, constrained tool-use policies, and input/output safety filters.
- Built a reproducible audit-ready evaluation pipeline for agentic AI systems, producing standardized compliance metrics to support regulatory audits and governance processes.

CEA LIST / DILS - In-painting using Generative AI for eXplainable AI Methods Evaluation **Feb 2025 - Aug. 2025**
AI Intern *Grenoble*

- Designed an inpainting strategy with generative AI to evaluate the correctness of XAI methods.
- Introduced a novel approach to assess the distribution of adversarial attacks in latent space.

L'Oréal Paris, Research & Innovation **June. 2024 - Aug. 2024**
R&I Intern *Aulnay-sous-Bois*

- Developed a classification model for chemical entities using SMILES notation, using RNN/LSTM architectures.
- Database management including data collection, organization, cleaning, and analysis.

Hubert-Curien Laboratory **Oct. 2023 - May. 2024**
AI Research Intern *Saint-Étienne*

- Explored a new approach for generating emotional facial expressions using latent space diffusion models to enhance emotion recognition performance.

Projects

Capstone Project: L'Oreal's Protection market through predictive detection. **Jan 2026 – Mars 2026**

- Built a two-stage market diversion detection pipeline, combining anomaly detection and order classification.
- Calibrated classification thresholds using a financial confusion matrix, weighing the business cost to align model decisions with operational investigator capacity.
- Delivered explainable model outputs, enabling investigators to audit flagged orders with interpretable risk drivers.

Trust RAG Orchestrator **Sep 2025 – Jan 2026**

- Designed and implemented a hybrid RAG pipeline combining dense vector search and BM25 sparse retrieval with a reranking stage to optimize context quality fed to LLMs for downstream generation.
- Evaluated retrieval and generation quality using NDCG metrics and the RAGAS evaluation framework.
- Fine-tuned the underlying LLM using Reinforcement Learning from Human Feedback (RLHF - DPO), aligning model outputs with user preferences and improving response quality.

Skills

Languages: Python, C++, SQL, Java, Matlab Simulink, JavaScript

Frameworks: PyTorch, Scikit-Learn, TensorFlow, Keras, Pandas

Tools: Git, Power BI, Linux, Docker, Talend, Latex

Languages English *(C1)*, French *(Native)*, Arabic *(Native)*