Abderrahmane **Ait gueni ssaid**

MACHINE LEARNING ENGINEER · M.S. COMPUTER SCIENCE

Grenoble, France

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Profile

Experienced ML Engineer with an M.S. in Data Science & AI (Grenoble-INP, Ensimag). Research and industry experience on interpretable ML, knowledge editing in LLMs, time-series forecasting, and applying ML to medical imaging. Comfortable across the ML lifecycle: research, prototyping, engineering and deployment. Proficient in Python, C/C++, CUDA, PyTorch, and production tooling (Docker, FastAPI, MLflow, Ray).

Skills

Languages	**Programming**	**Packages**		**Tools**
English: C2 - EF SET	Python 🐍	Pytorch ⭕	Elasticsearch 🔶	Linux 🐧
French: C1	C/C++ ⊙	scikit-learn 🐾	Matplotlib 🌐	Shell 🐚
German: A1	Cuda ▧	SciPy Ⓢ	OpenCV 🐿	Docker 🐳
Arabic: Native	Java ☕	Pandas 🐼	FastAPI ⚡	UV 🟪
Kabyle: Native	SQL	Transformers 🤗	MLflow 𝑚𝑙𝑓𝑙𝑜𝑤	Anaconda Ⓞ
	MPI	LangChain 🦜	Ray 🔜	Git 🔻
	OpenMP	Ollama 🦙	pytest 🧪	LaTeX

Publications

Factual Knowledge Assessment For Language Models Using Distractors   COLING 2025, ACL

H. A. Khodja, **A. Ait gueni ssaid**, F. Béchet, Q. Brabant, A. Nasr and G. Lecorvé.

Internships

ML Engineer   Orange - Lannion, FR

EVALUATION OF KNOWLEDGE EDITING IN LARGE LANGUAGE MODELS (LLMs).   Mar. 2024 - Aug. 2024

- Co-defined a **Knowledge Measure** to evaluate atomic knowledge editing of LLMs, incorporated temporality into the metric.
- Validated the measure across multiple LLMs and baseline random LMs; ran extensive controlled experiments and analysis.

ML Engineer   Grenoble Informatics Laboratory, FR

INTEGRATING INFORMATION RETRIEVAL CONSTRAINTS INTO DEEP NEURAL NETWORKS.   May 2023 - July 2023

- Reformulated IR constraints within a neural framework and developed the mathematical foundations for model integration.

ML Engineer   Grenoble Institute of Neurosciences, FR

MULTI-PARAMETRIC DATA INTEGRATION FOR IMAGING BIOMARKER DEVELOPMENT IN EPILEPSY.   Feb. 2022 - Aug. 2022

- Implemented clustering (k-means, GMM) for multi-parametric imaging data; evaluated models with AIC/BIC.

ML Engineer   Grenoble Informatics Laboratory, FR

DATA AUGMENTATION WITH GANs FOR SEMI-SUPERVISED CLASSIFICATION ON IMAGES.   June 2021 - July 2021

- Implemented semi-supervised models and experimented with GANs, SVMs and Random Forests for microscopic image tasks.

Education

M.S. in Data Science & Artificial Intelligence   Grenoble INP - Ensimag, FR

2ND YEAR GPA: 14/20 (HIGH HONORS). 1ST YEAR GPA: 13/20 (TOP 30% OF CLASS).   Aug. 2024

Magistère in Computer Science   Université Grenoble Alpes, FR

UNIVERSITY RESEARCH DIPLOMA - GPA: 14/20 (HIGH HONORS).   Aug. 2024

B.S. in Computer Science   Université Grenoble Alpes, FR

                                                                            Aug. 2021

Certifications

Mathematics for Machine Learning: Linear Algebra   Imperial College London (Coursera), 2023

Projects

2025
- **Court Case Analytics Pipeline (WIP)**: Built an automated system to download and process 670k+ legal case records daily using Polars; indexed data in Elasticsearch to enable full-text search, scalable storage, and real-time trend analysis (e.g., lawyer performance, case outcomes).
- **Retail Forecasting Microservice**: Built a production-aware pipeline using Prophet for modeling, Ray for parallel training, MLflow Registry for model versioning and monitoring, FastAPI for low-latency inference, and Docker/Kubernetes for scalable deployment.
- **LangChain Chat with Your Data**, deeplearning.ai
- **Made With ML** Combined ML with software engineering principles for production-ready ML applications.

2024
- **HomeLab**: A home server running multiple VMs and docker containers nodes on a Proxmox hypervisor.
- **Finetuning LLMs**, deeplearning.ai.
- **Pretraining LLMs**, deeplearning.ai.
- **Let's reproduce GPT-2 (124M)**, Andrej Karpathy Tutorial.
- **GPU-Accelerated Multilayer Perceptron from scratch** for MNIST Digits Classification.

2023
- **ML Algorithms from scratch**, Perceptron, Gradient descent, K-means, MLP.
- **Let's build GPT: from scratch, in code, spelled out**, Andrej Karpathy Tutorial.
- **SAT Solver**, Automated Planning and Problem Solving using PDDL4J and Sat4J.
- **Distributed Messaging System using Virtual Overlay Ring Network**, Designed and implemented using Java and RabbitMQ, highlighting expertise in distributed systems and routing algorithms.
- **System Programming - NachOS**. Collaborated in a team to implement processes, threads and synchronization features in the NachOS, gaining experience in OS design, implementation and multithreading.

2022
- **Balloon Breaker**: Developed a ROS-based C++ pipeline, coding the core contour-based balloon detection algorithm and integrating real-time tracking and control nodes; validated across multi-color scenarios.
- **Internships web scraping** Developed an automated application to extract and organize internship proposals from the faculty website into a CSV format. Python, Pandas, BeautifulSoup.

Work Experience

Student Tutor (self-employed)
Grenoble, FR

PRIVATE TUTORING IN MATHS, PHYSICS, CHEMISTRY AND COMPUTER SCIENCE.
Sept. 2019 - Present
- Taught students of varied ages; developed pedagogy and adaptable lesson plans.
- Skills: communication, patience, time management, problem solving.

Education Assistant
Grenoble High School, FR

RESIDENTIAL SUPPORT AND STUDENT SUPERVISION.
Sept. 2021 - Aug. 2023
- Facilitated student growth through supervision and mentorship; strengthened leadership and mediation skills.

Student Tutor
Solution Bilingue, FR

TAUGHT MATHS, PHYSICS, CHEMISTRY AND COMPUTER SCIENCE, TO PUPILS ACROSS SCHOOL LEVELS.
Dec. 2018 - June 2019
- Skills: teaching, communication, patience, problem-solving, adaptability, time management.

Volunteering

Technical Support, Bread Collection, Local Cleaning
Local community associations
- Maintained AV and surveillance systems; provided technical assistance for events.
- Coordinated bread collection for charity distribution.
- Participated in local community cleaning and maintenance activities.