

# Machine Learning Engineer

📍 Grenoble, France.

**ABDERRAHMANE AIT GUENI SSAID**



## SUMMARY

ML researcher holding a Master's in Data Science and AI from Université Grenoble Alpes. Experienced in cutting-edge AI topics such as knowledge editing in LLMs and applying ML to medical imaging. Proficient in multiple programming languages and AI frameworks.

## SKILLS

### Languages

English: C2 - EF SET  
French: C1  
German: A1  
Arabic: Native  
Kabyle: Native

### Programming

Python   
C/C++   
Cuda   
Java   
SQL,  
MPI, OpenMP.

### Packages

Pytorch   
NumPy   
scikit-learn   
SciPy   
Pandas   
Transformers   
LangChain

Matplotlib   
Seaborn   
OpenCV   
FastAPI   
MLflow   
Ray   
pytest

### Tools

Linux   
Shell   
Docker   
Anaconda   
Git   
L<sup>A</sup>T<sub>E</sub>X

## PUBLICATIONS

- H. A. Khodja, A. Ait gueni ssaid, F. Bechet, Q. Brabant, A. Nasr and G. Lecorvé, "Factual Knowledge Assessment For Language Models Using Distractors", COLING 2025.

## INTERNSHIPS

### Research Engineer

Orange - Lannion

Mar. – Aug. 2024

- Subject:** Evaluation of knowledge editing in large language models (LLMs).
- Contributed to the definition of a **Knowledge Measure (KM)**, to evaluate **atomic knowledge editing** of LLMs. Incorporated temporality. Conducted validation experiments on various LLMs and a random LM.

### Research Engineer

Grenoble Informatics Laboratory

May – July 2023

- Subject:** Integrating information retrieval (IR) constraints in deep neural networks.
- Reformulated **IR constraints** to the neural framework by developing the **mathematical foundations**.

### Research Engineer

Grenoble Institute of Neurosciences

Feb. – Aug. 2022

- Subject:** Integration of multi-parametric data by ML for the development of an imaging bio-marker in epilepsy.
- Implemented a clustering model using **k-means** and **Gaussian mixture models** for multi-parametric data, and evaluated employing AIC and BIC criterion's. Used mainly **Python**, **scikit-learn** and NiBabel.

### Research Engineer

Grenoble Informatics Laboratory

June – July 2021

- Subject:** Data augmentation with GANs for semi-supervised classification applied to images.
- Implemented a **semi-supervised model** in python for the prediction of phase and Euler angles in microscopic data. Evaluated different models and techniques including **GANs**, **SVMs** and **Random forest**.

## EDUCATION

### M.S. in Data science and AI

Grenoble INP-Ensimag

Aug. 2024

- 2nd year GPA: 14/20 (High Honors).
- 1st year GPA: 13/20 (Top 30% of the class) .

### Magistère in Computer science

Université Grenoble Alpes

Aug. 2024

- University diploma of research in computer science 3 years GPA: 14/20 (High Honors).

### B.S. in Computer science

Université Grenoble Alpes

Aug. 2021

## CERTIFICATIONS

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

## PROJECTS

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### 2025

- **LangChain Chat with Your Data**, deeplearning.ai.
- **Made With ML**: Combine machine learning with software engineering to design, develop, deploy and iterate on production ML applications.

### 2024

- **HomeLab**: A home server running multiple VMs and docker containers nodes on a Proxmox hypervisor.
- **Finetuning Large Language Models**, 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

- **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

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<b>Student Tutor</b>	<b>Self-employed - Grenoble</b>	<b>Sept. 2019 – Present</b>
<ul style="list-style-type: none"><li>• Taught maths, physics, chemistry and computer science, to all ages ranging from children to elderly.</li><li>• <b>Skills</b>: teaching, communication, patience, problem-solving, adaptability, time management.</li></ul>		
<b>Education Assistant</b>	<b>Grenoble High School</b>	<b>Sept. 2021 – Aug. 2023</b>
<ul style="list-style-type: none"><li>• Facilitated student growth through comprehensive residential support and dedicated supervision.</li><li>• <b>Skills</b>: leadership, responsibility, communication, mediation, teamwork.</li></ul>		
<b>Student Tutor</b>	<b>SOLUTION BILINGUE</b>	<b>Dec. 2018 – June. 2019</b>
<ul style="list-style-type: none"><li>• Taught maths, physics and chemistry, to pupils ranging from elementary to high school.</li><li>• <b>Skills</b>: teaching, communication, patience, problem-solving, adaptability, time management.</li></ul>		

## VOLUNTEERING

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- **Technical Support**. Provided technical support by maintaining and troubleshooting surveillance cameras, video projection, and sound systems, along with other technical tasks.
- **Bread collection**. Coordinated the collection of surplus bakery bread for distribution to those in need through a charity.
- **Local cleaning**. Contributed to the maintenance and cleanliness of a local community association.