

# Sinoué GAD




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 GitHub |  LinkedIn |  Website |  Hugging Face

**Objective:** 6 months end of study internship in machine learning/AI research    **When:** Spring/Summer 2026



## Projects

### Luth - KuraKura

 Blog —  GitHub —  Hugging Face

- Built and fine-tuned French LLMs with curated datasets and model merging, achieving SoTA French results with strong cross-lingual retention.
- Collaborated with **LiquidAI** to release a French fine-tuned version of LFM2 models: Luth-LFM2, first official "community" models.

### Muon Clip

 Blog —  GitHub

- Developed a PyTorch implementation of Muon optimizer with latest research: QK-clipping, improved Newton-Schulz gradients orthogonalization, corrected update's RMS, ZeRO 1 distributed training.

### VLM GRPO

 Blog —  GitHub

- Implemented GRPO training for VLMs, missing from existing frameworks.
- Integrated with TRL and Unsloth for seamless use and for multiple VLMs (Qwen, Gemma, LLaMA...).
- Collaborated with the **Unsloth team** to integrate this implementation into their framework.

## Papers

### Luth: Efficient French Specialization for Small Language Models



- Under review, 2025

## Work Experience

### Ampere - AI research intern

Spring 2025 – 6 months

- Conducted research to develop a real-time model for high-level semantic understanding of road scenes, leveraging state-of-the-art vision-language models and reinforcement learning.

### X&Immersion - ML research intern

Spring 2024 – 3 months

- Developed and implemented an optimized AI model focused on emotional intelligence generation, using NLP and LLMs.
- Integrated the model into a real-time game engine (Unreal Engine), optimizing performance for in-game use.

## Education

### Ecole Polytechnique - Polytechnic Institute of Paris

2025 – present

MSc Data Science – Cross-enrolled courses with the MVA Master program

**Relevant coursework:** *Advanced AI for text and graphs (ALTEGRAD), Deep Learning, Machine Learning, Reinforcement Learning, Representation Learning, Generative models, Optimization & Cooperative optimization for data science.*

### Politecnico di Milano

2024 – 2025

M2 Track Computer Science / AI

**Relevant coursework:** *Data mining, Foundations of AI, Deep learning, Uncertainty in AI, Computer vision.*

### Télécom SudParis - Polytechnic Institute of Paris

2022 – 2025

Master's degree – Mathematics and Computer Science

**Relevant coursework:** *Machine learning and deep learning, data analysis, applied statistics and probabilities, optimization algorithms, computer vision, data mining.*

## Skills & Interests

**Programming Languages:** Python, C, Bash, Java, Git

**Frameworks:** Pytorch, Transformers, Triton, Unsloth, TRL, Peft, vLLM, Numpy, Pandas, Scikit

**Languages:** French (native), English (C1), Arabic (A2)

**GitHub Contributions:** Unsloth, Axolotl, MergeKit, LightEval

**Extracurricular:** Rower (ex-French champion), 3D Artist, Guitar player