# Sinoué GAD

#### gadsinoue@gmail.com

☐ 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 GitHub

– Developed an implementation of the Muon optimizer in pytorch featuring the latest research advancements: QK-clipping, improved Newton–Schulz gradients orthogonalization with gradient matrix eigenvalue estimation, ZeRO 1 like distributed training ...

VLM GRPO

- 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.

# 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

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