

# Rémy SIAHAAN--GENSOLLEN

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More work / portfolio on

<https://remy-siahaan.com>

## Professional Experience

### HolocYTE

AI Research

Co-founder

- Trained JePA and transformer models on single-cell data to predict biological behavior and drug toxicity.
- Experience estimating empirical scaling laws. Also worked with contrastive learning and flow-matching.

### Interministerial Digital Directorate / Direction Interministérielle du Numérique (DINUM)

06/2025 — 09/2025

Data Scientist

Intern

- Worked on *Albert API*, an open-source gateway and toolkit for LLM inference by the French government.
- Fine-tuned models with reinforcement learning (GRPO, GDPO).
- Worked on strategies for improving service orchestration and inference speed.
- Designed a predictive model to estimate GPU requirements for large-scale inference stacks.

### CREST, École Polytechnique (X)

01/2025 — 08/2025

Research Assistant

Fixed-term, part-time

- Studied socio-economic profiles of top French engineering students using econometrics and applied machine learning.

### ACPR, Banque de France

06/2024 — 09/2024

Data Scientist

Intern

- Developed agentic RegTech solutions, evaluation protocols, and observability tools.

### Fondation de France

Summers 2022 & 2023

Project Officer

Fixed-term

- Built automated data pipelines for teams funding 100+ NGOs, reducing processing times from months to hours.

### Badblock Network

04/2015 — 12/2016

Full-stack Developer

Freelance

- Worked on a high-traffic game server network with several thousand concurrent players daily.
- Handled load balancing, message-oriented middleware for backend communication, NoSQL player-data store.

## Skills & Hobbies

- Python, Typescript, C, Java, SQL, Git
- Full-stack web development, infrastructure, networking, DevOps, GPU kernel writing (beginner)
- Native French, C1 English, B1 German
- Piano (1<sup>st</sup> Prize at Concours Musical de France), composition, sound design, photography

## Education

### ENSAE, Institut Polytechnique de Paris

09/2023 — Now

Engineering program in statistics and economics

- Probability theory, statistics, Stochastic Processes, Machine Learning, Econometrics, Micro- and Macroeconomics.

### Janson-de-Sailly Preparatory Classes

09/2021 — 07/2023

MP21/MPI\*

## Projects & Awards

- *Research project* Trained 3B parameters Sparse Autoencoders on open-weight LLMs; optimized the training pipeline with custom GPU kernels and systems-level improvements, achieving a 2× reduction in training time.
- *Research project* Contrastive fine-tuning with limited data for political bias prediction.
- *Research project* Reducing uncertainty in medical segmentation using ensemble methods.
- *CodinGame Certifications* Python, Java, "Coding Speed".
- *Consulting & Freelance Projects* Full-stack web development and AI projects for 10+ clients.
- ▷ QRT 2025 Data Challenge 1<sup>st</sup> Prize ▷ Hi!Paris 2024 Hackathon Scientific Approach winner
- ▷ AMD GPU Kernel Optimization 2025 Hackathon 3<sup>rd</sup> Prize ▷ E4C 2024 Hackathon 2<sup>nd</sup> Prize
- ▷ Crédit Agricole 2025 Data Challenge 3<sup>e</sup> Prize ▷ ACPR 2024 Hackathon 1<sup>st</sup> Prize
- ▷ Qubic Madrid 2025 Hackathon 3<sup>e</sup> Prize ▷ Ekimetrics 2024 Hackathon 1<sup>st</sup> Prize
- ▷ H-Gen AI 2025 Hackathon SCOR track winner ▷ EY Data Challenge 2024 6<sup>th</sup> worldwide, 2<sup>nd</sup> France
- ▷ Innov'her 2024 Hackathon Jury Prize, Public Prize

## Student Associations & Initiatives

### Uniate (AI Student Federation of France's top universities)

VP, Head of Events

- Organized multiple conferences, hackathons, paper clubs, and research competitions, including HackEurope (biggest hackathon in Europe, synchronized across 3 different countries) and events with Anthropic, Google DeepMind, Meta, Perplexity, ARC Prize and Y Combinator. Led several hands-on data science and machine learning workshops.
- Founded the Uniate Fellowship for AI in Biology. Started the Uniate Computing Cluster project. Managed the association's server infrastructure.

### Former roles

- Vice-President, Tuxae (ENSAE computing, ML/robotics association); Vice-President, ENSAE Student Union; Founder of *Spectra*, ENSAE sound, DJing & lighting association; Founder of *Vision*, ENSAE photography & filmmaking association.