

Luka Lafaye de Micheaux

French-Canadian-Swiss | AI hackathon prize-winner (€10 000+) | Seeking AI CIFRE PhD / AI research role.

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EDUCATION

- 🎓 **Master of Science in Artificial Intelligence**
Université PSL

Sep 2024 – Present
🇫🇷 Paris

Courses: Foundations of Machine Learning Optimization for Machine Learning Reinforcement Learning Large language models
Deep learning for image analysis Data acquisition, extraction and storage Data Science
- 🎓 **Engineering Curriculum**
Institut Polytechnique de Paris (Telecom SudParis)

Aug 2022 – Present
🇫🇷 Paris

Courses: Machine Learning Deep Learning Data Science Analysis and integration Statistics Optimization
Algorithmics & programming Operating systems Probability Signal theory Networks
- 🎓 **AI engineering exchange**
Ecole Polytechnique Montreal

Aug 2023 – Dec 2023
🇨🇦 Montreal

Courses: Technology Entrepreneurship Data Mining Machine Learning Natural Language Processing
- 🎓 **Intensive preparation for competitive entrance exams to leading French engineering schools**
Sainte-Geneviève

Sep 2020 – Jul 2022
🇫🇷 Versailles
- 🎓 **Baccalauréat S (U.S. equivalent high school plus one year) - 1st ranked**
Lycee Condorcet Sydney

Sep 2018 – Jun 2020
🇦🇺 Sydney

WORK EXPERIENCE

- 💼 **AI research intern**
Arteris IP

May 2025 – Present
📍 Sophia Antipolis 🇫🇷

- Developing a ML-based topology synthesis flow for Network-on-Chip design, using diffusion models, GNN based GANs and RL agents.
- 💼 **Machine learning intern**
Horiana

Jun 2024 – Sep 2024
📍 San Francisco 🇺🇸

- Developed an LLM-based LangChain RAG AWS app (with CI/CD and CodeDeploy) to automate the generation of medical papers using statistical studies, saving over \$120,000 annually.
- 💼 **Machine learning intern**
JustAI






Jun 2023 – Jul 2023
📍 Paris 🇫🇷

- Trained CNNs for plant classification and developed ESP32-based sensor kits for agricultural crop monitoring.
- 💼 **Vice president & Head of AI Division - IMT Paris**
KRYPTOSPHERE®

Oct 2022 – Oct 2023
📍 Paris 🇫🇷

- Designed and delivered deep learning workshops on CNNs, RNNs, Transformers, Reinforcement Learning, PyTorch, and other ML topics to over 30 students.

HACKATHON AWARDS

 Privacy Hack AI Hackathon - 1st ranked - Won € 3 000	September 2024
Designed Parseling, an app enabling medical clinics to leverage predictive AI on patient data without compromising privacy using fully homomorphic encryption.	(Privacy, Healthcare AI)
 SWE-Bench Hackathon (Performance Track) - 1st ranked - Won a cool sweater :)	August 2024
Built a tool that automatically resolves GitHub issues and achieved the best open-source performance on SWE-bench Lite (30.26%).	(Software engineering, Agentic AI)
 D4Gen AI Hackathon - 3rd ranked - Won €2 500	March 2024
Used AlphaFold to discover a protein able to protect RNA in cells.	(Biology, Protein language models)
 Ecole Polytechnique Montreal INF8245E ML Kaggle Hackathon - 1st ranked	November 2023
Developed a CNN for modified CIFAR-100 competition: applied data augmentation, SMOTE for class imbalance, hyperparameter tuning (dropout/architecture/lr scheduling).	(CNN, Deep Learning)
 Hackathon eau et numérique - 1st ranked - Won € 5 000	April 2023
Designed an app to track & predict hydrology indicators in France using Deep Learning.	(Hydrology, Deep Learning)

PROJECTS

LinkedinAutoApply	June 2025
Developed a LinkedIn auto-apply bot with customized resume and cover letter generation tailored to each job application.	(Selenium, Scraping)
LlamArt	February 2025
Created an on-device RAG app with a locally run 2B LLM, and finetuned YOLOv11 on a custom museum dataset for artwork detection, enabling real-time local chatbot experiences on phone (novel integration).	(YOLOv11, RAG)
Deep Learning Lung CT-Scan Segmentation	February 2025
Trained and fine-tuned nnUNet, SegFormer, SAM2, and Swin-UNETR on private sparse medical image segmentation dataset using multiple GPUs.	(Medical AI, Finetuning segmentation models)
3D Point Clouds	February 2025
Implemented and analyzed point cloud processing algorithms and 3D reconstruction techniques (ICP, CT-ICP, PCA-based descriptors, PointNet classification)	(Cloud processing, 3D reconstruction)
Segmentation Guided Diffusion for lung scan data augmentation	August 2024
Trained segmentation-guided diffusion model for generating realistic lung scans conditioned on disease-aware anatomical masks on private medical dataset.	(Medical data augmentation, Stable diffusion)
GNN movie rating prediction	November 2024
Predicted movie ratings for 610 users using a GNN model and compared it with matrix factorization, including metadata scraping. SoTA approach.	(Graph neural network, Movie rating prediction)
Harmoniq	November 2024
Developed a React Native based social network for musicians using v0.	(React Native, PostgreSQL)
MiniSocs Java social network	February 2024
Coded Java-based social network simulation featuring user management, moderation, and comprehensive unit testing.	(Java, Social network, Unit testing)
AI Resume parsing	April 2025
Fine-tuned a spaCy NER model on a custom resume dataset and deployed an MLflow x Airflow pipeline for automated training and tracking.	(spaCy NER, MLflow, Airflow)

BioFeed

July 2023

Set up backend infrastructure + hardware kit, and developed AI forecasting models alongside a web dashboard for real-time crop monitoring. WIP.

(Image classification, Forecasting, Backend setup)

SafeSync

June 2023

Built automatic and incremental backup C++ software using hard links to efficiently sync client folders with Linux server.

(Linux, Rsync, C++)

CrypTools

January 2020

Merged with CrypTool in 2020. The most widespread e-learning software in the field of cryptology according to Hakin9.

(Cryptography, Python, C, C++, Java)

HackDown

May 2020

Pure black and white responsive markdown Jekyll based blog generator.

(Blog generator, Jekyll)

SKILLS

Programming languages: Python, C, C++, Java, Bash, SQL

Artificial intelligence: Deep Learning, Machine Learning, Reinforcement Learning, Graph Neural Networks, Agentic AI

Frameworks & libraries: PyTorch, TensorFlow, Keras, Scikit-learn, LangChain, LangGraph, Pandas, NumPy, Matplotlib, Seaborn, MLflow, Airflow

Cloud, MLOps & DevOps: Docker, AWS CodeDeploy, CI/CD, S3, Git, GitHub Actions

Languages: French: Native, English: Fluent/C2, Spanish: Intermediate/B2, Mandarin: HSK2

Soft Skills: Team leadership, Workshop facilitation, Problem-solving, Communication, Adaptability

CERTIFICATES

🌟 Neural Networks and Deep Learning

🌟 Improving Deep Neural Networks, Hyperparameter Tuning, Regularization and Optimization

🌟 Deep Neural Networks with PyTorch

🌟 Generative AI with Large Language Models

🌟 Computing High Distinction at UNSW (HS1511)

🌟 Hi! PARIS Hackathon

🌟 AI Engineering Workshop - San Francisco

HOBBIES

🏃 Running - 1st place at [Bike & Run 2022](#)

🌍 Exploring cultures: Cuba, Cambodia, China, New Zealand, Spain, Belgium & The Netherlands - Lived in: Australia, Canada, France, US

🎯 Soccer, badminton, climbing & calisthenics (10 years)