

FLORENT TARIOLLE

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Engineering student seeking a 6-month final-year research internship in deep learning, starting in 2027.

EDUCATION

INSA Rouen Normandy	Rouen, France
Engineering degree, Computer Science and AI, expected 2027	2023 - 2027
University of Rouen Normandy	Rouen, France
M.Sc. in Data Science, research-oriented MLAI track, expected 2027	2026 - 2027
Lycée Dupuy de Lôme	Lorient, France
CPGE MP (Preparatory Classes for Grandes Écoles, Mathematics and Physics)	2021 - 2023

PUBLICATIONS

Opportunistic Target Selection May 2026

F. Tariolle and F. Yger. *CAp 2026 (Conférence sur l'Apprentissage automatique)*.

- Introduced a lightweight wrapper for score-based black-box adversarial attacks using early class confidence signals to reduce class drift in undirected random-search attacks.
- Improved attacks by up to 27 percentage points in success rate and a 43% relative reduction in censored-mean iterations on ResNet-50, validated across 4,500 ImageNet attack runs on five standard classifiers.

EXPERIENCE

InterDigital Rennes, France
Deep Learning Research Intern May 2026 - Present

- Working on deep learning methods for next-generation video compression, focusing on VVC (H.266) in-loop filtering and decoder-side filter selection to improve reconstructed video quality and coding efficiency.

Enedis Rouen, France
Academic Machine Learning Intern Jan 2026 - Present

- Working on deep generative models and large-scale PySpark pipelines to simulate high-frequency time series for 38 million customers, supporting a Digital Twin of the French electricity grid.

RESEARCH PROJECTS

SLS-WM: Structured Label Smoothing for Discrete World Models Feb 2026 - Present
Independent research project; manuscript in preparation.

- Designed a topology-aware training objective for discrete latent predictors using Gaussian kernels over FSQ coordinate distances with structure-informed per-dimension sensitivity weights derived from post-training latent-space analysis.
- Engineered an end-to-end World Model pipeline (Vision-Model-Controller) for Geometry Dash, integrating an FSQ tokenizer, an action-conditioned block-causal transformer with factored spatiotemporal positional encodings, and a CNN controller trained entirely in imagination.
- Deployed zero-shot on real Geometry Dash at 30 FPS (<33 ms end-to-end) on a consumer GPU by optimizing the PyTorch/CUDA inference path with compilation, CUDA graph replay, mixed precision, and pinned-memory transfers.

AWARDS & SELECTED ACTIVITIES

Selected Participant, Hack the World(s) Hackathon Jun 2026
Selected for a 24-hour hackathon on world models; event supported by Yann LeCun, with 100 participants chosen from 650 candidates.

OPEN SOURCE

Rose (Active: 15K+ DAU) Sep 2025 - Present
Co-founder & Lead Developer

- Co-founded and led development of a high-traffic real-time customization tool used by 15K+ daily active users; coordinated a 6-person team and designed the Python backend, Cloudflare Workers WebSocket relay, and browser-side JavaScript integration.
- Replaced OCR-based state extraction with deterministic DOM parsing, reducing latency and operational complexity.

TECHNICAL SKILLS

Programming: Python, C++

AI & ML: PyTorch, JAX, NumPy, CUDA, Deep Learning, Reinforcement Learning, World Models, Adversarial ML

Data & Systems: Spark, Distributed Pipelines

Languages: French (native), English (TOEIC 970/990)