

FLORENT TARIOLLE

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

EDUCATION

INSA Rouen Normandy	Rouen, France
Engineering degree, Computer Science and Artificial Intelligence, expected 2027	2023 – 2027
<i>Approx. U.S.-equivalent GPA: 3.7/4.0 overall; 4.0/4.0 latest semester.</i>	
University of Rouen Normandy	Rouen, France
Master's Degree, Machine Learning for Artificial Intelligence, expected 2027	2026 – 2027
Lycée Dupuy de Lôme	Lorient, France
CPGE MP (Preparatory Classes for Grandes Écoles, Mathematics and Physics)	2021 - 2023

PUBLICATIONS

DashVMC: Real-Time Discrete World Model Control in Geometry Dash Aug 2026

F. Tariolle and F. Yger. *Submitted to NeurIPS 2026 Workshop PTA.*

- Built a real-time Geometry Dash controller around an 8x8 FSQ token grid, action-conditioned transformer dynamics, and a lightweight actor-critic initialized by behavioural cloning and refined with PPO in frozen-model rollouts.
- Trained offline from approximately two hours of recorded gameplay with no live-game interaction; deployed a decoder-free 15.57M-parameter controller at 60 FPS on an RTX 2060, improving over its behavioural-cloning parent on all three official levels and a held-out community layout.

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 - Sep 2026

- Investigated an alternative to Neural Network-based In-Loop Filter (NNLF) for VVC (H.266) that predicts which decoder-side filters to apply to reduce compression and quantization artifacts; preparing a publication on the work.
- Authored and filed more than 10 patent applications arising from the research.

Enedis Rouen, France
Machine Learning Intern Jan 2026 - May 2026

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

AWARDS

Finalist, Hack the World(s) Hackathon Jun 2026

24-hour hackathon on JEPAs and world models, sponsored by Yann LeCun

- Selected as one of 100 participants from 650+ applicants, in a cohort drawn from France's leading engineering schools and universities; placed among the top 5 of 25 teams.
- Developed a geometry-aware joint-embedding EEG SSL system: strong SIGReg frozen-transfer baselines and Riemannian latent analysis showing structure in SPD covariance representations.

OPEN SOURCE

Rose (30K+ DAU; 500+ GitHub stars) Sep 2025 - Present
Co-founder & Lead Developer

- Co-founded the real-time customization tool and led its six-person team, contributing across the Python backend, browser integration, and infrastructure.

VisualTorch (300+ GitHub stars) Jul 2026 - Present
Maintainer & MCP Integration Lead

- Maintain VisualTorch, an official PyTorch Ecosystem project; designed and implemented its MCP integration for generating editable neural-network architecture diagrams.

TECHNICAL SKILLS

Programming: Python, C++

AI & ML: PyTorch, CUDA; Deep Learning, Self-Supervised Learning, World Models, Model-Based RL and Planning

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

REFERENCES

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Frédéric Lefèbvre: frederic.lefebvre@interdigital.com