Hadrien Levechin

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Summary

After my studies in engineering at Télécom Paris and in the MVA Master's program (Mathematics, Vision, and Learning) at ENS Paris-Saclay, I am looking for my first position in computer vision and deep learning. Curious, autonomous, and motivated, I enjoy tackling complex problems and applying my knowledge to real-world projects where technology creates both creative and practical value.

Education

MVA (ENS Paris-Saclay), Research Master in Mathematics, Vision and Learning — Sept 2024 – Nov 2025

Focus: generative models, deep-learning (MLP, CNN, Transformers), computer vision , geometric and topological data analysis

- **Generative Modeling:** Deep Generative Models • Optimal Transport • Probabilistic Graphical Models
- **Geometry & Topology:** Geometry Processing • Geometric Deep Learning • Deformable and Geodesic Models
- **Medical Imaging:** Deep Learning for Medical Imaging • Biophysical Models
- **Math Foundations:** Convex Optimization • Computational Statistics • Time Series Learning

Télécom Paris, Engineering Degree Program – GPA: 4.0 / 4.0 — Sept 2021 – Dec 2025

IMAGE Track: mathematics, computer vision, and AI

- Computer vision • Object recognition and segmentation • Variational and Bayesian methods • Coherent imaging • Source separation • Remote sensing • Medical imaging

Data Science Track: statistical and machine learning

- Advanced statistics • Optimization • Machine learning • Deep learning

Classe Préparatoire, Fénelon Sainte-Marie, MPSI & PSI* — Sept 2019 – June 2021

Experiences

Research Intern — Deep Learning for Medical Imaging, GE HealthCare – Buc — April 2025 - Oct 2025

- Generalization to spectral CT (GSI): adapted multi-label segmentation methods to dual-energy acquisitions, improving robustness across spectral domains.
- Cascaded networks under CPU constraints: designed a multi-resolution refinement pipeline to better segment small structures with feasible inference times; delivered two variants (lightweight fast model and high-accuracy model).

Additional Professional Experiences – France — 2019 – 2024

- Private Tutor (Mathematics and Physics)
- Held multiple roles in the restaurant industry, including server, bartender, and team manager.

Projects

Hyperspectral Image Super-Resolution (Group Project) — 2024

- Implemented a deep learning approach for hyperspectral image super-resolution by fusing low-resolution hyperspectral and high-resolution multispectral images.
- **Impact:** Acquired practical experience implementing recent research architectures and addressing challenges in spectral–spatial fusion and training stability.

3D Digital Holography (Group Project) — 2023

- Created digital holograms from 3D files using light interference on a spatial light modulator (SLM), bypassing optical setup adjustments.
- **Methods:** Implemented diffraction algorithms based on Rayleigh–Sommerfeld and Fresnel integrals in Python, leveraging existing research and computational tools.
- **Impact:** Designed a protocol at Télécom Paris to visualize holograms from digital 3D object files.

Voluntary Experiences

President & Founding Member, Télécom Racing — 2021 – 2024

- Founded an association promoting responsible and accessible motorsport.
- Organized large-scale events, including participation in the 24 Hours of ESSEC (largest European student race).

Project Manager, Junior Entreprise Télécom Paris — 2023 – 2024

- Managed multiple study projects for corporate clients, coordinating student teams and ensuring project follow-up.

Skills, Languages & Interests

Technical: Python (TensorFlow, PyTorch, Scikit-learn) • Machine Learning • Deep Learning • Computer Vision
Soft Skills: Leadership • Team Spirit • Autonomy • Problem Solving • Adaptability
Languages: English (C1) • French (Native) • Spanish (B1)
Hobbies: Guitar • Piano • Photography • Karting • Jujitsu