

Erwan DAVID

Last year Master engineering student
at CentraleSupélec (France)

PROFILE

Passionate about **Machine Learning (ML)**, I'm also very interested in **natural evolution**, **neuroscience** and **video games**.

My CentraleSupélec - Arts et Métiers double degree gives me a dual theoretical and industrial practical background.

CONTACT



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github.com/ErwanDavidCode

SKILLS

Python (Numpy, Keras, Sklearn, PyTorch, Pyqtree ...)


C# (2D platformer and 3D horror games under Unity)


Web development (HTML, CSS, Bootstrap)


Git (GitLab, GitHub)


Catia 3DEXPERIENCE, Solidworks

Languages:

 French: native language

 English: advanced - C1 level
TOEIC: 950/990 - DET: 135/160

 German: beginner - B1 level

 Japanese: beginner - A1 level

INTERESTS

Swimming, running (half marathon)

Scuba diving (level 1)

Strategic board games

Volunteering: ARPEJ 78, la main à la pâte

ACADEMIC BACKGROUND

2023 à 2025
Gif-sur-Yvette



CentraleSupélec - Double degree with Arts et Métiers
Ingénieur Programme Grandes Écoles 3rd year.

- **Machine Learning** (DNN, CNN, RNN, Reinforcement, Random Forest, SVM, transfer, GAN, NLP ...)
- Explicability of AI systems
- **Finance** and case studies in strategic **consulting**

2022



Specialization in machine learning

In addition to the courses at Arts et Métiers, I took Andrew Ng's (Stanford professor) online courses on: **supervised learning**, **unsupervised learning**, **reinforcement learning** and

2021 - 2023



Arts et Métiers Institute of Science and Technology (ENSAM)

Ingénieur Programme Grandes Écoles 1st and 2nd year.

Ranking: 9^e/1175 - GPA: 4/4 - Grade A.

Engineering student. Main modules:

- **Mechanics and industrial engineering, power supply**
- **Computer science** and industrial production

2019 - 2021



Lycée Sainte-Geneviève

Intensive program preparing for competitive entrance examinations to top engineering colleges.

GPA: 3,79 - Grade: A.

Mathematics, Physics, Engineering Sciences.

2016 - 2019

Lycée F. Le Dantec - French scientific Baccalaureat with high honors

INTERNSHIPS & PROJECTS

June 2024 - August
2024 - Finland



Natural evolution of an ecosystem – research internship

I simulated the **natural evolution** of a hostile ecosystem in Python, where individuals are controlled by **artificial neural networks**. They evolve through genetic mutations and learn to develop both individual and group survival strategies.

March 2024 -
June 2024



Transport network travel prediction – python project - ML

I implemented ML classification algorithms for CITiO, a subsidiary of RATPDev.

I explored, implemented and tuned **Random Forest**, **XGboost**, **SVM**, **neural network** algorithms with my team.

September 2023
- June 2024



Automatants Projects – python project - ML

Within Automatants, CentraleSupélec's AI association, I have already worked on several projects with different technologies: **DNN** dense neural network, **CNN** image classification, **GAN** image generator, **CNN** structure in **U-Net**.

September 2022
- June 2023



Random & Coherent 3D World Generation - Vanilla python project

I developed an algorithm that generates a unique 3D world each time it runs. In particular, I used **Perlin Noise**, **Bézier curves**, **Voronoi diagrams**, and **Gaussian blur**.

June 2022



1st year engineering internship – Internship using python

I was a developer in a project of visualization of road accidents for the French Ministry of the Interior. I programmed in **python** an algorithm of surface density calculation (**KDE**) and clustering (**DBSCAN**) with **SKlearn**.

Other projects:

On my **GitHub** & my **website**