

Jean-Charles Noirot Ferrand

4th year Engineering student



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LinkedIn



Github

Languages



French Native



English C1/C2



Spanish B1



Chinese A1/A2

Programming



Python

Numpy, Math, Scipy, Tkinter,
NetworkX, Tensorflow



MATLAB



HTML, JS, CSS



C#, OCaml, GLSL, L^AT_EX



SQL

OS Windows, Ubuntu



GitHub, VMWare

Skills



Working Experience

Projects

2022 – 2023

Research Project : Procedural content generation

ÉCOLE CENTRALE DE LYON

- Review of the state-of-the-art procedural content generation : machine learning models such as autoencoders, generative adversarial networks, LSTM, etc.
- Creation and exploitation of a model to generate images using a music and its affect representation

2021 – 2022

Study Project : Developing an application for the game Blokus

ÉCOLE CENTRALE DE LYON

- Development of an application in C# allowing to play Blokus with players or AI with different difficulties
- Leader of communication in a team of 6 students
- Leader of the theory regarding the AI (mathematical modelization, evaluation function)
- Selected for the school's best study project prize (Francis Leboeuf prize) out of 90 study projects

2020 – 2021

Study project : Encoding a message in the tempo of a music

LYCÉE MARCELIN BERTHELOT

- One year project in the context of the entry exams
- Analysis and improvement of an algorithm found in a preprint
- Implementation in Python on Ubuntu (WSL)

Education

Study

2021 – 2024

General Engineering Degree

ÉCOLE CENTRALE DE LYON

- B.S and M.S. in Engineering Sciences
- Multidisciplinary studies : Maths, Physics, Computer Science, Fluid Mechanics, Electrical Engineering, Economics, Management, etc.
- Specialization in Computer Science

2021 – 2022

B.S. Mathematics and applications

CLAUDE BERNARD LYON 1 UNIVERSITY

- Double degree with Ecole Centrale de Lyon
- Courses including Measure and Integration, Topology and Differential Equations, Groups and Geometry, Probabilities and Statistics, Differential Calculus and Complex Analysis, Algebra and Geometry

2019 – 2021

Classe Préparatoire aux grandes Écoles

LYCÉE MARCELIN BERTHELOT

- 2-year intensive program preparing for the national competitive exams for entry to the top French Engineering Schools
- Mathematics and Physics cursus, highest honors

Extra-Curricular Activities

Sports

Badminton, Exercises at home

Programming

Animation using the Python library *Manim*, Creation of shaders in GLSL via *Shadertoy*

Reading of publications

Following of major advances in computer science through channels like *Two Minute Papers* or websites such as *arXiv*

Other

Music, Video games, Reading, etc.