

2020-2024 Licence's Degree (L3) & passed M1, in Computer Science, École Normale Supérieure of Rennes,

Rennes, France.

Ranked 80th at the 2020 ENS Rennes' computer science entrance exam. Mainly taking classes with practical programming

projects, in graphics, security, low level, etc.

2018-2020 MPSI and MP*, Lycée Saint-Louis, Paris, France.

Higher Maths and Physics, Computer Science.

2018 Scientific Baccalauréat, Lycée Thérèse d'Avila, Lille, France.

Highest honors.

※ Tools & Programming Languages

Comfortable using **Rust**, Cargo, **C** (up to C18), **C++** (up to C++20), Python

OpenGL, GLSL, Wgpu, WGSL

VSCode, Git, GitHub, Docker, GitHub action workflows, Linux, Windows

Already worked with Unity, C#, HSLS, Vulkan, Cmake, Make, Java, OCaml, Bash, Assembly (x86_64)

※ Personal Experience

Started programming as a hobby in 2013 and spent a lot of time on personal hobby projects ever since. A portfolio of my most relevant and presentable projects is available at <u>anima-libera.github.io</u>. These passion projects are about games, tools, programming languages, compilers, graphics, etc.

Familiar with: low level (optimization, memory management, debugging, assembly), high level (abstractions, OOP, debugging logic bugs), multithreading, GPU (graphics and compute), custom widget-based UI, procedural generation (terrain or other content, custom value noise), good practices (management of ownership, maintainable code).

※ Academic Experience

2022-2023	Internship, INRIA (National Institute for Research in Digital Science and Technology), Lille, France,
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Retro-engineering and covert-channel attack on the branch predictor unit of a modern Intel CPU. Over 6 months.

2022 Computer Graphics Internship, Multi Fragment Rendering, Athens University of Economics and

Business. Greece.

Learning and implementation of some multi-fragment rendering techniques in C++/OpenGL. Over 3 months.

2021-2022 Research Project, String Art, IRISA (Research and Innovation Laboratory in Digital Science and Technology),

University of South Brittany, France.

Study, implementation and optimization in C/C++ on string art, a non-photorealistic rendering technique. Over 1 year.

Co-authored a paper published and presented at an international conference.

2021 Security Internship, Study of the vulnerabilities emerging from the linking of hardened C/C++

code with Rust code, INRIA, team CELTIQUE, France.

Reading of papers, problem analysis and presentation, C/Rust programming. Over 2 months.

2020 Security Project, Exploiting buffer overflows, heap corruption, return-oriented programming,

sandbox escaping, ENS Rennes, France.

Reverse-engineering, assembly, attack and defense, practice and paper reading. In C. In groups of 2, over 5 months.

French

2018 Participating to the "TFJM2" (Tournois Français des Jeunes Mathématiciens et Mathématiciennes) Maths

Tournament, Lille, France.

In teams, ranked $2^{\rm nd}$ in Lille's pool. Maths and programming research problems.

※ Hobbies & Miscellaneous

※ Languages

Video games, manga, anime

Programming for personal projects (a lot)

Reading sci-fi/fantasy novels

English Driver's license

Spoken and written Fluent

Mother Tongue

Technical vocabulary

TOEIC 2022: 955/990 (C1 level)

Portfolio: https://github.com/anima-libera