



Julien Larget-Piet

[Github](#)

[LinkedIn](#)

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Open Source Projects

Cherubin Library for scientific computations (very big numbers and/or very accurate) - C++

- Implementation of the following operations (addition, subtraction, division, multiplication, trigonometric functions, exponential, logarithms, factorial...)
- Benchmarks to find the best data structure to work with (ex: `std::vector<char>` ou `std::deque<char>`)
- Algorithms optimization in specific scenarios
- LinkedIn article: [implémenter-les-opérations-fondamentales](#)

Fulgurance Data management and statistical library - C++

- Implementation of the dataframe object
- Implementation of matrix operations (transposed, determinant...)
- Implementation of probability functions (CDF, PDF...) on various laws
- Implementation of sorting algorithms, grep, match
- Implementation of PCA (working on it)

Moutarde Transformation Engine - C++

- XML like data structure language
- XSLT like query language
- Based on pairs of parentheses

flask_blog Blogging framework - Python & Flask & Mariadb & NGINX

- Allow Markdown posts
- Comments
- Users, privileges (admins, bans...)
- Download the database

Simple_RegEx Regular Expression - C++

- Creation of a ReGex dialect

simple_doc Automatic documentation tool - C++

- Html page generation with Table Of Contents
- Customisable theme.
- [d mo_youtube](#)

[minos_cipher](#) Proof of Concept of a symmetric encryption algorithm - C++

- Uses combinations to assign a unique $7 \cdot bits$ combination to cipher data with 2 keys
- LinkedIn article: [chiffrement-et-combinatoire](#)

Share my experience and knowledge

2022 - Today , I share my work on [LinkedIn](#) and [Youtube](#) sharing my passion.

Some examples:

- Youtube: [Implémenter_sin\(x\)](#)
- Youtube: [Optimiser le calcul de l'exponentielle](#)
- Article LinkedIn: [chiffrement-et-combinatoire](#)

Professional experiences and Studies

2024 **Data Mining Bachelor**, *Gustave Eiffel University*, Noisy-Champs, 6 months internship at Dreamrs

- Linear Regression
- PCA, MCA, CFA
- Machine learning, supervised algorithms: KNN, random forest
- Cross validation

2022-2023 **Chemistry Bachelor**, *Lycée Notre Dame Les Oiseaux*, Verneuil-Sur-Seine,

2021 **Scientific Baccalaureate**, *Charles de Gaulle*, Poissy

Connaissances techniques

- Python (Flask, Django, Pandas, Polars, NumPy, SciPy...)
- R (data.table, dplyr, Rshiny, Rcpp, ggplot2)
- HTML, CSS, JS, NGINX
- LaTeX (Tikz...)
- Bash (AWK, Sed, Ps, Grep)
- C++
- Git, Gitlab, GitHub
- SQL

Langues

English ToEIC obtained 745 / 990 - experimented (writing / reading / speaking)

Spanish B2 - Advanced reading knowledge and good oral comprehension

French Fluent