

Malo Leroy

Seeking an IT or Research internship in Quantum Computing – Available November 17th 2025 - February 2026

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Experience

Research Scientist Intern | IBM Quantum

August 2025 - November 2025

Theoretical and experimental research in Quantum Error Mitigation (QEM)

[Qiskit](#), [SciPy](#), [NumPy](#)

- Conducting research on a novel QEM technique
- Collaborating with IBM researchers to implement and benchmark the technique on real quantum hardware

Software Engineer | Paris Digital Lab

February 2025 - July 2025

Highly selective gap year program developing three 7-weeks innovative projects for companies

[Rust](#), [C++](#), [Flutter](#), [Docker](#) 🔗

- Programmed a performance-focused, Cloud-native Fully Homomorphic Encryption framework for BPCE Group
- Engineered a secure phone dialer and messaging app with identity verification based on the european eIDAS / EUDI standard

Quantum Computing Research Intern | INRIA

November 2023 - February 2025

Part-time intern in INRIA's QuaCS team

[QASM](#), [C++](#), [GoogleTest](#), [CMake](#) 🔗

- Theorized an innovative data structure to represent quantum states & circuits
- Started writing a scientific paper on the subject, detailing the mathematical background and properties of the data structure
- Created and implemented algorithms for fast classical simulation of quantum circuits

Core Member | ViaRézo (IT association)

September 2023 - February 2025

Technical administrator of France's largest student ISP

[Kubernetes](#), [Ansible](#), [OpenStack](#), [Ceph](#)

- Operated 400+ Unifi APs and 50+ Juniper switches to provide Internet to 2.5k+ students
- Administered a 200+ virtual machines OpenStack cluster and a 150+ pods Kubernetes cluster

Head of training

[Bash](#), [Git](#), [Python](#), [LaTeX](#), [Docker](#), [Ansible](#)

- Devised and conducted public training sessions and internal workshops on various technical topics

General Secretary

[GDPR](#), [NIS2](#), [PostgreSQL](#), [MySQL](#)

- Managed administrative and legal operations, ensuring compliance with national & european regulations
- Held responsibility for database administration across all services (13M+ rows)

Network Infrastructure Intern | Paris-Saclay University

June 2024 - July 2024

- Troubleshooted and secured a university library's network infrastructure

[Cisco IOS](#), [Wireshark](#), [VLANs](#)

Projects

Metaheuristics for the TSPTW problem | CentraleSupélec

January 2024

- Developed & extensively benchmarked an approximative solution to the TSPTW problem

[Jupyter](#), [Numba](#)

C/C++ Unit testing library | Personal project

August 2022

- Developed a fast and memory-safe library leveraging the preprocessor, with a stack-based approach
- Engineered pipelines for continuous integration and live documentation deployment

[C](#), [GitHub Actions](#) 🔗

Classical simulation of quantum algorithms | Chateaubriand Highschool

February 2022 - June 2022

- Created a formal algebra library to enable exact scalar and matrix computations
- Programmed a standalone proof-of-concept implementation of Shor's algorithm on up to 10 qubits

[Python](#) 🔗

MP3 player and meta-data reader | Personal project

June 2021

- Implemented a pure-Dart MP3 meta-data reading library directly from the ID3 standard
- Created a multi-platform MP3 player with a custom UI seamlessly running on Android, iOS, Linux and the web

[Flutter](#), [Dart](#) 🔗

Education

CentraleSupélec – Paris-Saclay University

2023-2027

Master of Engineering (MEng), GPA 3.97

- CentraleSupélec is an elite French engineering school part of Paris-Saclay University (12th in the Shanghai Ranking)
- **Relevant Coursework:** networks & security, information theory, microarchitecture design & assembly, linear algebra, general algebra, design and verification of critical systems, quantum physics, quantum computing

Chateaubriand Highschool

2021-2023

Selective post-secondary school

- Intensive two-year preparatory program for competitive entrance exams to French Grandes Ecoles, with a focus on mathematics

🌐 **Languages:** French (native), English (fluent), Spanish (conversational)