

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
<i>Theoretical and experimental research in Quantum Error Mitigation (QEM)</i>	Qiskit, SciPy, NumPy
<ul style="list-style-type: none">Conducting research on a novel QEM techniqueCollaborating with IBM researchers to implement and benchmark the technique on real quantum hardware	
Software Engineer Paris Digital Lab	February 2025 - July 2025
<i>Highly selective gap year program developing three 7-weeks innovative projects for companies</i>	Rust, C++, Flutter, Docker ↗
<ul style="list-style-type: none">Programmed a performance-focused, Cloud-native Fully Homomorphic Encryption framework for BPCE GroupEngineered 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
<i>Part-time intern in INRIA's QuaCS team</i>	QASM, C++, GoogleTest, CMake ↗
<ul style="list-style-type: none">Theorized an innovative data structure to represent quantum states & circuitsStarted writing a scientific paper on the subject, detailing the mathematical background and properties of the data structureCreated and implemented algorithms for fast classical simulation of quantum circuits	
Core Member ViaRézo (IT association)	September 2023 - February 2025
<i>Technical administrator of France's largest student ISP</i>	Kubernetes, Ansible, OpenStack, Ceph
<ul style="list-style-type: none">Operated 400+ Unifi APs and 50+ Juniper switches to provide Internet to 2.5k+ studentsAdministered a 200+ virtual machines OpenStack cluster and a 150+ pods Kubernetes cluster	
Head of training	Bash, Git, Python, L^AT_EX, Docker, Ansible
<ul style="list-style-type: none">Devised and conducted public training sessions and internal workshops on various technical topics	
General Secretary	GDPR, NIS2, PostgreSQL, MySQL
<ul style="list-style-type: none">Managed administrative and legal operations, ensuring compliance with national & european regulationsHeld responsibility for database administration across all services (13M+ rows)	
Network Infrastructure Intern Paris-Saclay University	June 2024 - July 2024
<ul style="list-style-type: none">Troubleshooted and secured a university library's network infrastructure	Cisco IOS, Wireshark, VLANs

Projects

Metaheuristics for the TSPTW problem CentraleSupélec	January 2024
<ul style="list-style-type: none">Developed & extensively benchmarked an approximative solution to the TSPTW problem	Jupyter, Numba
C/C++ Unit testing library Personal project	August 2022
<ul style="list-style-type: none">Developed a fast and memory-safe library leveraging the preprocessor, with a stack-based approachEngineered pipelines for continuous integration and live documentation deployment	C, GitHub Actions ↗
Classical simulation of quantum algorithms Chateaubriand Highschool	February 2022 - June 2022
<ul style="list-style-type: none">Created a formal algebra library to enable exact scalar and matrix computationsProgrammed 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
<ul style="list-style-type: none">Implemented a pure-Dart MP3 meta-data reading library directly from the ID3 standardCreated 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
<i>Master of Engineering (MEng), GPA 3.97</i>	
<ul style="list-style-type: none">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
<i>Selective post-secondary school</i>	
<ul style="list-style-type: none">Intensive two-year preparatory program for competitive entrance exams to French Grandes Ecoles, with a focus on mathematics	