

MARTIN LE FORMAL

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EDUCATION

EFREI Paris, France 2021-2024 (expected)
Master of Engineering in Data Engineering
Relevant Coursework: Statistics, Machine Learning, Big Data Frameworks, Cloud Computing

EFREI Paris, France 2018-2021
Bachelor of Engineering in Computer Science
Relevant Coursework: Linear Algebra, Probability, Analysis, Algorithmics, Electronics, Databases

EXPERIENCE

Embedded Software Engineer - Missile Optics and Electronics Apr 2024 - Sep 2024 (current)
Thales LAS *Elancourt, France*

- Designed an event driven IPC protocol using the inotify Linux API.
- Developed a software interface to emulate Rafale commands sent to the Talios POD.
- Created a custom Flight Joystick driver based on the Win32 API.
- Documented the Talios/Rafale communication system implemented in a 1553 bus.

Quant Developer - Automated Market Making - Equities & Derivatives Oct 2022 - Apr 2023
BNP Paribas CIB *Paris, France*

- Created a log file parser using PySpark and regex for metrics extraction.
- Developed an extension to the Python pickle library allowing runtime polymorphisme serialization.
- Refactored the market simulation engine launcher used for backtesting automation.
- Implemented continuous integration for Python library development through various test cases.
- Rewrote the retrieval & archiving process for production servers configuration files.

Quant Developer - Automated Market Making - Equities & Derivatives Jan 2022 - Aug 2022
BNP Paribas CIB *Hong Kong SAR, China*

- Developed a parser in C++11 that generates H5 market data files from network packet captures.
- Integrated the parser to the Multicast Listener for intraday data generation.
- Tested the order management system according to the Thailand Stock Exchange new regulation.
- Automated the generation of reports measuring market order success rate.

RELEVANT SKILLS

C++20

- Proficient in navigating and managing large codebases using Neovim and LLVM-based LSP configurations.
- Experienced with CMake for build configuration and Ninja for efficient build execution.
- Identified performance bottlenecks with perf and resolved issues using strace.
- Applied knowledge of run-time versus compile-time paradigms and implemented suitable designs.
- Designed and implemented thread pools to enhance thread management and improve concurrency.
- Conscious of memory allocation for data structures selection.

Collaborative Work

- Acquired basic trading knowledge through internships at BNP Paribas and personal research.
- Passionate about understanding users' needs to effectively leverage and build upon others' work.
- Enjoy working collaboratively to address challenges and share insights.
- Proficient in using Git for efficient collaboration in software development.

INTERESTS AND ACTIVITIES

Competitive Programming: ReadyTraderGo (2023), Prologon (2019 & 2020), LeetCode, Codewars.
Chess: (2/472) University chess championship (2021), Hosted the French university championship (2019).
Hobbies: CppCon ♣ Technology related podcast ♣ Golf ♣ French and Russian literature ♣ Cinema.