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*

· Development of simulation environment for the Talios POD software
· Emulated Rafale-F4.2 commands through a MIL-STD-1553b bus
· Developed a Windows software that reads Joystick commands from the Win32 api and forward it to a gateway

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

· Created a log parser through PySpark used for metrics extraction from large log files (50GB)
· Developed an extension to the Python pickle library allowing serialization of runtime polymorphic instances
· Refactored the market simulation engine launcher used for backtesting automation
· Implemented continuous integration for Python library development through 12 test cases
· Rewrote the recuperation & 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 memory efficient parser in C++11 to generate market data files from network packets
· Integrated the parser to the FPGA listener through a multimap and spinlock implementation
· Tested the new order management system according to the Thailand Stock Exchange
· Automated the generation of reports measuring market order success rate

RELEVANT SKILLS

C++20

· Compile-Time dispatch: constexpr, template metaprogramming
· Toolchain: CMake, Ninja, Conan, Catch2, Clang Sanitizers, godbolt
· Concurrency: Lock-Free using std::atomic, Spinlock, Thread Pool, SIMD
· Cache optimization: Contiguous data structures, Hashing strategies

Python 3.9

· Library development: Matching built-in modules standards, decorators, metaprogramming
· Scripting: Speedcoding, Pythonic functional programming

TUI Environment

· Linux/macOS, i3/yabai, tmux, Bash/Zsh, Neovim

INTERESTS AND ACTIVITIES

Competitive Programming: Prologin (2019 & 2020), ReadyTraderGo (2023), LeetCode, Codewars
Chess: (2/472) University chess championship (2021), Hosted the university championship (2019) as the president of the school chess club.
Hobbies Golf ✤ Rugby ✤ Russian literature ✤ Cooking ✤ Cinema