Alexandre Martin

Delta One Trader at BNP Paribas

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FINRA Series 7, 57 and 63. NFA Series 3.

Professional Experience

Mar 2023 · now — **Delta One Trader - Vice President**, *BNP Paribas*, New York

Trading all Delta One products covering ETFs and single stocks:
- Trading the ETF D1 and Financing book: provide synthetic exposure on ETFs and indices to institutional clients, optimize inventory and financial resources usage, and drive the ETF create-to-lend activity.
- Running ETF and index arbitrage strategies, both systematic and discretionary.
- Making markets on financing products such as BTICs, conversions, equity swaps and forwards.
- Overseeing and trading the D1 Single Stocks book.
- Overseeing and trading the D1 Canada book.

Apr 2018 · Mar 2023 — **Research Engineer**, *BNP Paribas*, Paris, France

Architecture and engineering of pricing engines and market data systems:
- Led a team of six engineers.
- Developed pricing engines and models for ETF market making and Delta One trading.
- Built and maintained storage systems for large financial datasets (multiple petabytes of data) with high bandwidth and low latency requirements. Maintained one of the largest data pipelines within the bank.
- Provided technical expertise to the rest of the Quantitative Research team, including expertise on programming languages, software design, low-level programming and efficient usage of the Linux operating system APIs.

May 2017 · Dec 2018 — **Software Engineer**, *Mozilla*, Paris, France

Research and design work on the Rust programming language:
- Worked on a proof searcher for Rust's type system and its integration in the official compiler.
- Designed and implemented new features for the Rust language.
- Published RFC 2089 – Implied Bounds, which was accepted and implemented.
- Advised the language and compiler teams on multiple features and theoretical issues related to the type system.

Skills

- Experience with risk managing a large derivatives trading book (> $20B gross size, 200+ different ETFs).
- Extensive experience using quantitative methods and rigorous mathematical reasoning for problem solving.
- Extensive experience in software design and engineering.
- Extensive experience with parallel programming and low-level programming, especially with Linux.
- Programming languages: Rust, C++, C, Python. High expertise in Rust, having made significant contributions to the Rust programming language and its compiler. Expertise in dealing with issues specific to low-level languages, such as memory safety and Undefined Behavior.

Education

2018 — **MS in Mathematics "Probability and Finance" (El Karoui)**, *Sorbonne Université*, France
Graduated with High Honors.

2016 — **BS in Computer Science**, *École Normale Supérieure of Lyon*, France
Graduated with Highest Honors.

2016 — **BS in Mathematics**, *Université Claude Bernard Lyon 1*, France
Graduated with Highest Honors, ranked 1st overall.

2015-2018 — **École Normale Supérieure of Lyon**, France