LUCAS LEBIHAN

Quantitative Engineer | Pricing, Risk & Production Software

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EXPERIENCE

Quantitative Engineer

BNP Paribas

Sep 2024 - Present Paris, France

- **Front-office pricing & risk analytics:**
  - Built Python TRF pricing libraries for EU/US equity indices, covering dividend adjustments and corporate actions
  - Engineered cross-asset delta-exposure pipelines across ETFs, futures, swaps, and equity options to normalize Greeks across books
- **System architecture & performance:**
  - Built a high-availability FX service for daily Mark-to-Market PnL, with sub-20 ms service latency and active failover
  - Refactored dividend aggregation from quadratic to linear complexity, cutting runtime by 50 % and memory usage by 95 %
- **Quantitative research & controls:**
  - Built index-basket rebalancing and ETF reconciliation routines to preserve hedge integrity and support tracking-error analysis

Tools: Python, GNU/Linux, Excel, Ada, Go

World Travel

Career Break

Sep 2023 - Sep 2024 Worldwide

One year travelling around the world between two professional roles

Software Engineer - MX.3 Platform

Murex

Mar 2021 - Sep 2023 Paris, France

- **Trading platform & API engineering:**
  - Delivered low-latency REST APIs for order routing, position management, and portfolio synchronization through FIX
  - Integrated new and legacy MX.3 services through event-driven architecture with explicit data-consistency boundaries
- **Performance & delivery:**
  - Built a concurrent cache to improve API throughput and p99 latency under peak test load
  - Standardized CI/CD and Liquibase schema versioning across Oracle, Sybase, and PostgreSQL

Tools: Java, Spring Boot, C++, REST

EDUCATION & CERTIFICATION

M.Eng. in Computer Engineering
Ensimag - Grenoble INP 2018 - 2021

M.Sc. in Quantitative Finance
IAE Grenoble - Université Grenoble Alpes 2020 - 2021

AMF Certification - Apr 2025

TECHNICAL SKILLS

Programming:
Python · Java · Go · TypeScript

Data & APIs:
FastAPI · PostgreSQL · Polars · DuckDB · Parquet

Quantitative:
Options Pricing · Greeks · Calibration · Monte Carlo · VaR

Engineering:
REST · CI/CD · Linux · Docker

SELECTED PROJECTS

Option Model Lab source
Interactive TypeScript/Python lab comparing Black-Scholes, Heston, Merton Jump Diffusion, SABR, and Local Vol with documented conventions and numerical tests.

TickerFlow
Python pipeline that validates OHLCV data, stores partitioned Parquet, builds time bars, and exposes deterministic FastAPI queries.

DeltaCore
Pricing and risk backend covering Black-Scholes, Bachelier, Greeks, implied volatility, Monte Carlo, scenario PnL, VaR, and Expected Shortfall.