

Julian KUMARAKULASINGAM

QUANTITATIVE DEVELOPER · BLOCKCHAIN ENGINEER · TRADER

Paris, France

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Summary

Quantitative Developer with **7+ years** building high-performance trading systems for tier-1 investment banks. Specialized in front-office tools, risk analytics, and automated trading strategies. Proven track record of delivering systems that directly impact PnL, reduce operational risk, and improve execution quality. Currently applying expertise to DeFi/blockchain markets with successful algorithmic trading implementations.

Skills

Programming Languages	Python (<i>Expert</i>), Rust (<i>Intermediate</i>), SQL (<i>Expert</i>), Solidity (<i>Intermediate</i>), Typescript (<i>Intermediate</i>).
Tools & Technologies	PostgreSQL, React/Nextjs, Git, Docker (<i>Kubernetes</i>).
Blockchain Frameworks	Foundry, Web3py, Anchor, Brownie, GraphQL.
Financial Products	Equities, Fixed Income, ETFs, Derivatives, Commodities, Cryptocurrencies.
Languages	French (<i>Native</i>), English (<i>Fluent, TOEIC</i>), Tamil (<i>Native</i>), Japanese (<i>Beginner</i>), Spanish (<i>Beginner</i>).
Certifications	AMF, Bloomberg, Machine Learning.

Experience

BNP Paribas Asset Management

Paris, France

DEVELOPER

Aug. 2022 - PRESENT

- Enhanced and developed new features for internal fund lifecycle management application, significantly increasing team operational efficiency.
- Collaborated closely with business analysts and stakeholders to gather requirements and deliver solutions aligned with portfolio management needs.
- Designed and implemented backend services using **Python** (Flask) and **PostgreSQL**, ensuring scalable and maintainable architecture.
- Created responsive frontend components with **React**, providing intuitive interfaces for fund managers.
- Actively participated in code reviews and pair programming sessions, maintaining high code quality standards across the team.

Natixis CIB

Paris, France

QUANTITATIVE DEVELOPER

Mar. 2022 - Jul. 2022

- Developed and maintained Python-based **trading tools** for **position and risk management**, helping traders avoid costly errors.
- Automated critical daily workflows, transforming time-consuming manual processes into efficient systematic operations.

Société Générale CIB

Paris, France

QUANTITATIVE DEVELOPER - FIXED INCOME ETF MARKET MAKING

Jan. 2021 - Mar. 2022

- Developed tactical tools for market makers and traders including custom basket pricer for **real-time** ETF valuation.
- Created efficient ETF bond overlap computation tool in **Python** using matrix operations with NumPy/Pandas to **optimize** hedging strategies.
- Built **analytical dashboard** providing traders with **real-time** insights to improve trade assessments and spread adjustments.
- Worked directly with traders to iterate on tools based on their feedback, ensuring practical usability.

John Locke Investments (Internship)

Paris, France

QUANT TRADER ASSISTANT - HEDGE FUND

Dec. 2019 - Jun. 2020

- Executed **daily trading** and **hedging** operations on European and US markets for market-neutral and smart equity fund (**€100M AUM**).
- Developed pairs selection model for pairs trading strategy using unsupervised machine learning clustering techniques.
- Produced daily PnL and risk reports for portfolio managers.
- Backtested trading strategies on historical market data.

BNP Paribas CIB

Paris, France

EQUITY DERIVATIVES PNL ANALYST

Nov. 2017 - Jun. 2019

- Managed daily production and **analysis of PnL** across various desks (flow/exotics, equity trading, structured products, automated market making).
- Developed automated tools in **VBA** and **Python** to streamline PnL attribution and risk factor analysis.
- Provided critical support during volatile market conditions, ensuring accurate PnL reporting for regulatory requirement.
- Collaborated with front office to investigate and explain PnL movements.

Société Générale CIB (Internship)

Paris, France

COMMODITIES TRADING ANALYST

Mar. 2017 - Sep. 2017

- Analyzed daily PnL and managed risk (using **Greeks**) in commodities markets including vanilla products, structured products, and ETFs.
- Assisted traders with pre-trade analysis and post-trade reconciliation.
- Developed **Excel/VBA** tools to automate routine analysis tasks.
- Gained hands-on experience with commodity derivatives pricing and risk management.

Education

(ESILV) Ecole Supérieure d'Ingénieurs Léonard de Vinci

ENGINEERING DEGREE

- Specialization in quantitative finance and programming.

Paris, France

Sept. 2014 - Aug. 2017

(LSBU) London South Bank University

MSC INTERNATIONAL FINANCE

- In-depth study of financial markets and corporate finance.

London, U.K

Sept. 2015 - Jan. 2016

Personal projects

Blockchain | DeFi

Paris, France

SOLANA ECOSYSTEM

Aug. 2024 - PRESENT

- Developed ultra-**low-latency** Solana DEX sniping bot in Rust, achieving consistent fast execution on new token launches.
- Building a **cross-DEX arbitrage bot** for Solana, implementing advanced algorithms to capture price discrepancies across liquidity pools and optimize trading execution.
- Built **analytical dashboard** for dex arbitrage for monitoring **real time trades** and gain insights.
- Deployed a **Solana Wrapper Application** in TypeScript enabling seamless token wrapping/unwrapping - open source and available at **solana-wrapper.vercel.app**.
- Actively **providing liquidity** on Meteora DLMM pools, implementing dynamic range strategies to optimize yield while managing impermanent loss.

Blockchain | DeFi

Paris, France

ETHEREUM AND EVM-COMPATIBLE CHAINS

Sep. 2021 - PRESENT

- Developed NFTs and smart contracts in **Solidity** for an NFT-based game, implementing secure minting and transfer mechanisms.
- Built a Python bot monitoring Aave protocol health factors in **real-time**, identifying liquidation opportunities with automated alert system.
- Created an **arbitrage detection bot** in Python for Berachain (EVM), scanning multiple DEX pairs for profitable trading opportunities.
- Actively provided liquidity on Uniswap and similar DEXes, developing strategies for optimal position management and yield optimization.