Maël Boccardi

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Summary

Quantitative Analyst with nearly 2 years of experience in asset management, specializing in **Python**-based quantitative modeling, data analysis, and systematic risk management frameworks. Proven ability in **econometrics**, derivative pricing, and **machine learning** techniques to build robust investment strategies and conduct risk assessments. Holder of a Master's in Quantitative Finance and a Magistere in Economic Engineering. Passionate about leveraging analytical skills to solve complex financial challenges.

Experience

Quantitative Analyst Intern, Ofi Invest Asset Management – Paris, France — May–Nov 2024

- Contributed to the validation of various quantitative models, prioritized by criticality level
- Developed **stress-testing** frameworks using structural models for corporate credit risk, using object-oriented **Python** programming
- Conducted a comprehensive literature review on NLP methods for upcoming **model validation**

Quantitative Analyst Apprentice, Natixis Investment Managers – Paris, France — Sep 2022–Oct 2023

- Researched and developed systematic macroeconomic regime-based for quantitative **asset allocation** strategies
- Backtested long-term retirement portfolios and updated performance attribution of model portfolios for management comity
- Calculated **derivatives**' Greeks, technical indicator and worked on risk parity portfolio strategies

Trader Assistant Intern, Aquae Capital – Marseille, France — Jul–Sep 2022

- Designed financial performance indicators and risk alert models for global hedge fund portfolio
- Gained practical knowledge in equity portfolio management and options hedging

Quantitative Research Intern, Aix-Marseille School of Economics – Marseille, France — May–Jun 2022

- Investigated cross-asset volatility interdependencies using statistical modeling (**R**)
- Implemented GARCH and ECM models analyzing volatility dynamics between gold and cryptocurrencies

Education

Université Paris-Dauphine - PSL, validated program in CFA Level I – Paris, France — 2024

- Asset Valuation, Ethics, Fixed Income, **Derivatives**, Portfolio Management, Economics

Aix-Marseille School of Economics & Ecole Centrale Méditerranée, Dual Degree in Magistère Economist-Engineer & MSc Quantitative Finance – Marseille, France — 2020–2023

- Completed a rigorous academic program that emphasized financial engineering, parametric and non-parametric **econometrics**, advanced **machine learning** methods, time-series forecasting, stochastic mathematics, and quantitative risk management

University of Kent, Exchange Program in MSc Financial Economics – Canterbury, UK — 2021–2022

- Specialized training in financial economics, econometric modeling, multi-factor models, microeconomic and macroeconomic theory

Projects

Credit Risk Stress Testing

Built a Merton-model-based **stress-testing** framework to analyze corporate debt sensitivity under equity shocks via spread variations. Combined equity and credit-side asset stress scenarios to assess portfolio risks arising from environmental regulatory impacts.

Multi-Asset Allocation

Developed a dynamic allocation strategy utilizing AQR-style factors and macroeconomic regimes. Implemented quantitative allocation of equity market factor returns using the Black-Litterman model, informed by macroeconomic signals extracted through PCA.

Volatility Spillover Study

Implemented GARCH and ARDL econometric models to investigate volatility transmission among gold, cryptocurrencies, and various asset classes. Analyzed causality patterns and volatility persistence under high-stress market conditions.

Air Traffic Prediction

Analyzed and forecasted air traffic data employing machine/deep learning techniques including Prophet (Facebook), N-BEATS (Neural Basis Expansion Analysis), N-HiTS, XGBoost, and Random Forest, providing robust predictions.

Skills

Programming: Python (Pandas, SciPy, scikit-learn, Keras) [Advanced], **R** [Advanced], **SQL** [Intermediate], **Git**, LaTeX, SAS [Beginner]

Fields of Expertise: Econometrics, Time Series, Risk Management, **Machine Learning**, Portfolio Optimization, **Derivatives**

Tools: Aladdin by BlackRock, Bloomberg Terminal (BQL), pack Office (Word, Excel, PowerPoint)

Languages: English [Fluent], French [Native], Spanish [Beginner]

Interests

Athletics (specialized in throwing), Climbing (5.10d YDS/6b+ French), Freediving, Scuba Diving (Open Water certified), Skateboarding, Literature, Poetry, Traveling (Asia, Europe, North America)