Matteo Craviotto

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EDUCATION

Master of Science, Financial Engineering, GPA: 3.9 — *Los Angeles, CA*
University of Southern California, Viterbi School of Engineering — *Expected Dec 2026*
Relevant Courses: Stochastic Processes, Time Series and Volatility Modeling, Portfolio Theory, Financial Analytics, Money and Capital Markets, Corporate Finance

Bachelor of Science, Finance, GPA: 3.7 — *London, Turin, Berlin*
ESCP Business School — *2024*
Thesis: Analyzed impact of macroeconomic shocks (monetary policy, inflation, growth surprises) on alternative asset prices. Built regime-dependent models showing correlation breakdown during stress periods. Demonstrated systematic relationships between macro drivers and cross-asset behavior.

SELECTED PROFESSIONAL EXPERIENCE

Numerai · Hedge Fund - Competition — *Los Angeles, CA*
Quantitative Researcher — *2025–Present*
- Developed and deployed **cross-sectional ML alpha signals** on ∼280M rows and 2.4k features, generating **market-neutral 20-day return forecasts**.
- Achieved robust validation performance (**CORR** ≈ 0.029, **Sharpe** ≈ 1.38 across 300+ eras) using **LightGBM** with **purged time-series validation**; deployed model live in Numerai's hedge fund tournament with forward-test **Sharpe** ≈ 0.64 (ongoing).
- **Automated** the weekly production cycle with **retraining** and governance workflows, integrating signals into Numerai's collective **meta-model for capital allocation**.

Euronext Securities — *Milan, Italy*
Custody Intern · Income & Fiscal Services — *May–Nov 2023*
- **Reconciled 1,000+** annual income and corporate events (dividends, coupons, redemptions) across Covered Warrants, Certificates, and ABS, reducing **settlement breaks** and ensuring accurate **cash-flow posting** for institutional clients.
- Strengthened **operational risk controls** by identifying and escalating discrepancies in entitlements and payments, ensuring **compliance** with CSDR and T2S standards.
- Engineered an **Excel/VBA automation** that flagged late participant payments with **100% detection accuracy**, cutting processing time from ∼1 hour to **under 1 minute** and safeguarding revenue from **penalty fees**.

Deloitte Consulting — *Milan, Italy*
Junior Analyst · Financial Services Industry — *May–Aug 2022*
- Contributed to the design and rollout of Deloitte's first secondary-market tax-credit platform, enabling Italian banks to resell credits across **1+ bn** in transactions.
- Designed system logic that **automated eligibility checks** and **transaction workflows**, eliminating manual reviews and reducing **operational risk**.
- Collaborated with technology, compliance, and banking stakeholders to align platform functionality with **regulatory requirements** and **market practices**, ensuring adoption by **5+ major institutions**.

QUANTITATIVE RESEARCH PROJECTS

Macro Regime Duration Model — GitHub
Python (statsmodels, pandas, NumPy, matplotlib); econometrics, Markov-switching, stochastic processes, yield-curve modeling
- Built a 3-state **Markov-switching model** detecting latent Recession / Growth / Expansion regimes in GDP, inflation, and unemployment.
- Integrated Nelson–Siegel VAR(2) yield-curve forecast and regime-conditioned mean–variance optimizer, achieving **Sharpe 1.08 vs 0.73**, −45% **drawdown**, −28% **volatility**.
- Quantified transition persistence (> 0.87 stay prob.), expected durations (∼13 mo recession, 8 mo growth, 4 mo expansion); validated **regime alignment with NBER cycles**.

Delta-Neutral Options Market-Making Simulator *(in progress)* — GitHub
Python, pandas, NumPy (BS closed-form); LightGBM, cvxpy, Streamlit, TAQ/OptionMetrics planned
- Minute-level, **NBBO-aware** delta-neutral simulator: BS **theos & Greeks**, **put–call parity residual**, asymmetric spreads with **inventory lean/soft-cap**, explicit **fees + delta-band hedging**; logs **P&L**, **fill-rate**, **drawdown**, **AS (bps)**, with a **stale-quote guard**.
- **Backtesting + OOS runner** over day CSVs (1-min Yahoo underlier + synthesized NBBO options); targets **8–15% fill-rate** with costs; **ML skew & cvxpy tuning planned**; synthetic 800-min (∼550 fills) validation.

Options Parity Checker — GitHub

Post-Earnings Drift Backtest — GitHub

SKILLS

Finance & Methods — Time-series modeling, portfolio optimization, risk modeling (VaR, Monte Carlo), derivatives pricing
Programming & ML — Python, C++, SQL, Git (pandas, numpy, statsmodels, scikit-learn, LightGBM, cvxpy)