CONSTANTIN DENUELLE

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I am a hybrid between quantitative researcher and trader, used to working across different cultures. I have spent my career formulating, solving, and bringing into production creative solutions to the problems encountered in trading.

PROFESSIONAL EXPERIENCE

MENAI FINANCIAL GROUP London
Cryptocurrency Trader / Quantitative Researcher Sep 2021 - Present

Market making for Ripple's On-Demand Liquidity (ODL) program (volume up to $30M volume a day):
- Monitoring both automated and manual trading of crypto spot/perpetuals and FX.
- Developed constrained inventory optimizer, to dynamically identify the cheapest trading routes.
- Modeled and reverse-engineered the XRP patterns, to capture the juicy (90 bps) rebate on ODL flow.
- Added intraday alpha indicators to optimize execution.

UPCOLLATERAL Paris
Co-Founder Sep 2019 – Aug 2021

Designed a proprietary collateral optimization, with a mixed integer linear program.
Subsequently adapted it inhouse with Euroclear to enhance one of their flagship products:
- Successfully addressed huge dimensions (thousands of both assets and counterparties), and integrated many specific constraints (counterparty and concentration limits, min/max sizes, …).
- Generated huge savings for final clients (up to $1M on a single day).

STRATOVOLQUANT Paris
Quant Finance Freelancer Mar 2019 – Aug 2021

- Worked with clients to enhance their quant trading frameworks (smile modeling and calibration, options market making strategies).
- Side project with proprietary funds: cryptocurrency derivatives trading. Intraday stat arb strategies.

BNP ARBITRAGE Paris
Options Market Making Jun 2018 – Feb 2019

- Quant trader for electronic market making on front month European index options.
- Project lead on automation of index client flow market making (auto pricing and auto hedging).

EXANE DERIVATIVES Paris
Head Of Derivates Electronic Trading Jan 2015 – Dec 2017

- Creation and management of the Strategist team (5 direct reports).
- Business plan owner, wrote specs for IT core services (historical data, market access, referential).
- Rolled out for the different trading desks:
  - Market making strategies on futures and options trading.
  - Pricing (futures, options, variance and volatility swaps) and real time calibration libraries.
  - Quant trading framework (statistical indicators, reversion strategies, portfolio optimizations...).

SOCIETE GENERALE INVESTMENT BANKING Paris
Quant Research/Trader Apr 2006 – Dec 2014

Quant Research
Job with an emphasis on communication and quantitative excellence: Interaction with a variety of professionals in the firm (quant, trading, risk, IT, top management):
- Responsible for unified modeling of the volatility surface and of dividends (100+ trader users globally).
- Quantitative problem solving: correlation estimates, exotics risk management, local volatility model…
- Invented proxy formula used across the bank to price equity index options and variance swaps.

Quant Trader
Conception of automated intraday mean reversion strategies. In close collaboration with specific desks, rolling out in production of:
- Market making on index options (electronic and IDB).
- Electronic market making on futures term structures (dividend, vix, vstoxx, commodities).
- Prop trading on European index and bond futures.

EDUCATION

UNIVERSITÉ PARIS-6 Paris
Master Probability and Finance, obtained with honors 2006 – 2007

ÉCOLE POLYTECHNIQUE Paris
Engineer's degree 2003 – 2006
Courses in applied mathematics, physics, economics, programming.
Work placements as an officer in French Land Forces, factory worker (China), NGO volunteer (Guinea).

LYCEE DU PARC Lyon
Preparatory classes for the "Grandes Écoles" (MPSI-MP)* 2001 – 2003

SKILLS

- **Programming**: Python, C#, full stack development.
- **Miscellaneous**: Machine learning, statistics, PCA, alpha research, trading, derivatives pricing, DeFi .