SAMUEL FORSTER

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github: https://github.com/spf34/

PROFESSIONAL EXPERIENCE

TOBAM Dec 2017 – Present
Quantitative Analyst, Product Specialist Dublin, Ireland

Research and development of systematic investment strategies focusing on diversification.

- Overseeing the index and advisory business on a daily basis: portfolio rebalancing, answering client queries and providing technical assistance in the sales and marketing processes, oversight of product launches and onboarding, mentoring junior colleagues, running internal trainings, and creating technical documentation.
- Working as part of a small product development team responsible for idea-generation, data acquisition and cleaning, implementation, backtesting and presentation of results to investment committees, CIO and CEO. Example strategies include bottom-up multi-asset, systematic high yield, liquid private markets, carbon footprint constrained portfolios, factor-based strategies and new geographies, e.g. 'China A', Switzerland.
- Development of a modular, in-house Python backtesting library in a version-controlled environment (Git). Key contributions include: asset class additions (futures, bonds, multi-asset), FX hedging capabilities and robustness testing functionality. Implementation of a variety of convex optimisation problems and constraints using cvxpy and commercially available software such as MOSEK. Grown to > 10 internal users.
- Utilising a range of techniques from probability, statistics, optimisation and machine learning to tackle problems in portfolio construction. Examples include: proposing and leading global parameter review, transaction cost modelling and calibration, covariance matrix estimation, portfolio robustness testing, replication under liquidity and tracking error constraints and volume estimation.
- Portfolio manager for TOBAM Bitcoin fund, cryptocurrency operational and research projects.

Susquehanna International Group Feb 2016 – May 2017, Non-compete – Nov 2017
Assistant Trader, Emerging Market ETFs and Futures Dublin, Ireland

- Supporting senior traders with daily tasks including monitoring intraday performance and order flow, providing OTC prices and hedging desk exposures. First in cohort to be given ownership of own symbols.
- Backtesting and live implementation of relative-value FX, equity futures and ETF modelling strategies.
- Conducted latency studies on order-book data to inform desk quoting parameters such as width and size.
- Built inventory management model whose suggestions were adopted by the wider team.

Societe Generale Feb 2015 – Jan 2016
Cross Asset Structurer – FICC (Intern) London, UK

Working closely with sales and trading teams on the development and pricing of bespoke structured products.

- Credit Linked Notes, First to Defaults, Tranches, Bond Repacks, Range Accruals, Caps/Floors, Hybrids.

EDUCATION

Certificate in Quantitative Finance (CQF), Grade: 99% (60% complete) Jan 2020 – Jul 2020

Supervised, Unsupervised & Deep Learning. Stochastic calculus, Martingales, SDEs. Portfolio Construction, Econometrics. Option pricing, Exotics, Monte Carlo methods. Fixed income & Credit Derivative Pricing.

University of Cambridge, *Mathematics PhD, Incomplete (EPSRC Scholarship)* 2013 – 2014

University of Warwick, *Postgraduate Certificate in Systems Biology (EPSRC Scholarship)* 2012 – 2013

University of Warwick, *MMath Mathematics, First Class Honours, 88% (Top 5 in year)* 2008 – 2012

Relevant Coursework: Linear Algebra, Probability, Bayesian Statistics, Machine Learning, Mathematical Computing, Partial Differential Equations, Numerical Analysis, Stochastic Processes, Fourier Analysis.

TECHNOLOGY

Proficient in Python including numpy, pandas, matplotlib, sklearn, cvxpy, tensorflow, keras.
Basic: Git, SQL, Java, VBA, Matlab. Advanced Microsoft Office, Bloomberg, Latex.

OTHER

Won Blades & Pegasus cup with Hughes Hall boat club. Successfully carried out best-man duties twice.