Pranav Aggarwal, CFA

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EDUCATION

University of Cambridge – M.Eng Aerospace and Aerothermal Engineering 2008- 2012

- Relevant modules: Multivariate Optimization, Mathematical Methods & Complex Analysis, PDEs & Variational Methods, Modelling Risk, Micro/Macro Economics and Strategic Valuation
- Research project: Deriving analytical models for stream-wise counter-rotating vortices from vortex generators in high RE flows

ARPM Quant Marathon – A rigorous Masters level programme for buy-side quants Mar 2021 – Mar 2022

Bancroft's School, UK

- A-levels: Maths (A), Further Maths (A), Physics (A), Chemistry (A); AS level: Biology (A); GCSEs: 8A* grades

EXPERIENCE

Coutts Asset Management, London – **Director, Quantitative Research** Jun 2017 – Present

Summary: Quantitative strategy research (alpha capture/risk premia) across equities, rates, credit, systematic strategies and derivatives

- Built the Coutts' quantitative asset allocation system and all strategies in its entirety (in a team of two)
- Create value, carry, trend, macro and sentiment models across asset classes to generate a tactical and strategic asset allocation
- Create portfolio construction frameworks to translate model views into portfolios (MVO/Black-Litterman/Robust methods etc)
- Evaluate QIS strategies across the major sell-side banks and customise these to achieve desired portfolio outcomes
- Responsible for running all options-based strategies (volatility RV, correlation and hedging) in Coutts discretionary portfolios

Optiver (HFT), Amsterdam, Netherlands – **Derivatives Trader, Equity Index Options** May 2016 – May 2017

Summary: Electronic market making and trading the volatility surfaces on options on Eurostoxx, AEX and DAX indices

- Directly responsible for generating P&L and managing trading book
- Developed a solid understanding of derivatives pricing, portfolio sensitivities to option 'greeks' and market microstructure
- Incorporated methods to exploit statistical arbitrage and mean reversion opportunities
- Contributed to the development of binary event payoff models to price events such as Brexit and US elections

Schroders Asset Management, London, UK – **Quantitative Researcher, Investments** Aug 2015 - Apr 2016

Summary: Quantitative research analyst in the Schroders cross asset class research team aiming to generate alpha through combining market knowledge with the use of alternative/'big' data and advanced quantitative methods

- Transactions Database: Built models to systematically 'nowcast' revenue growth for 100+ merchants in Consumer Disc/Staples sectors in advance of quarterly/half-year results. Further used this model to understand changes in spending habits of consumers
- Conducted statistical analysis on copper mines globally, modelling evolution of industry cost curve and all mines on the curve into the future. Used this to extract a transition matrix for mines and probability distributions for future costs of each mine

Rolls Royce plc, UK - Professional Excellence Engineering Graduate Programme Sep 2012 – Jul 2015

Summary: I undertook heavily technical roles involving computational modelling of components and leaderships roles to deliver challenging projects to tight deadlines. Specialised in Turbine Aerodynamics

- Optimised turbines and compressor blades using 2D and 3D computational fluid dynamics simulations
- Patent submission: Spline-sleeve concept to enable fan wind-milling during gearbox/shaft seizure
- Lead progress reviews with government board and university research teams on key future technologies

EXTRACURRICULAR/LEADERSHIP ROLES

- **Mentor** – Mentor junior PMs and investment colleagues at Coutts 2018 - Present
- **Founder of 'Wise-king Education'** 2014 – Apr 2016
  An organization providing education, mentoring and careers advice to students from underprivileged backgrounds

ACADEMIC/PROFESSIONAL SCORES and OTHER QUALIFICATIONS

- **CFA Society -** Chartered Financial Analyst (CFA); **Institute of Mechanical Engineers –** Chartered Engineer (CEng)
- **Udacity –** Machine Learning Nanodegree**; Coursera –** Machine Learning; **Stanford -** CS229 Machine Learning (audit)
- **MENSA** - Top 1% globally; **GRE –** tested at top 2% (GMAT equivalent score of 750)

SKILLS & INTERESTS

- **Tech Stack**: MATLAB, Python, R, SQL, Git, VBA, Bloomberg, Datastream, Tableau and Machine Learning techniques
- **Interests**: Kickboxing, squash and reading fiction
- **Languages**: English, Hindi/Urdu, Punjabi and Spanish (basic)