Aayush Parekh

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EDUCATION

University of Nottingham	Nottingham, UK
BSc. (Hons) Mathematics with Statistics: expected 1:1	*Sep. 2023 – Jun. 2026*

EXPERIENCE

Quantitative Trading/Developer Intern — Nov. 2024 - Present
Typhoon Trading — Python, Pandas, Rust — *Remote, UK*
- Market-making/stat arb crypto perpetual & spot futures on OKX/Bybit as a small team of 4 people
- Built a Python pipeline to automate rho-adjusted delta hedges for BTC/ETH portfolios
- Building the pipeline highlighted errors in hedging methodology existingly used by the firm - leading to proprietary research & development of new hedging methods
- AUM increased from \$2mn to \$10mn during time of involvement with the firm due to new lines of credit

Quant Trading/Research Insight Programmes — Apr. 2024 - Present
Various — Python, Pandas — *London, UK*
- **Capula Investment Management:** Built an ETF arbitrage strategy using Python, placing competively high
- **D.E. Shaw London Insight:** Selected to participate in an event to learn more discretionary investing & systems engineering., placing within the top 5 teams for a hedge-fund / market maker simulation.
- **IMC Trading Launchpad:** Placed highly in a market-making simulation, 6/40 in poker tournament. Learning about option greeks to strategies e.g straddles and covered calls
- **Citadel European Trading Invitational:** Placed top 20 in market-maker simulation, adjusted and skewed bid-ask spreads, automating ETF hedging strategy using Python to optimise order fulfillment speed
- **Goldman Sachs:** Winner of rates trading game, insight into fixed income & investment bankingaa
- **SIG Discovery Day:** Winner of market-making game, introduction to HFT trading strategies

RESEARCH, PROJECTS & COMPETITIONS

Lead Developer & Co-Founder — Sep. 2019 – Mar. 2025
Animations: Mocap @ Roblox Corporation — Lua, TypeScript, Python, Blender, Maya — *London, UK*
- Created architecture using Lua, Python, GitHub CI/CD, while also designing user interfaces for a dancing game
- Nominated for the top performing social dance game — peaking at 16,000 concurrent users, held top 75 position.
- Reached end of life cycle coming into 2025. Sold IP rights to VC firm - now working on other games on Roblox!

Rotman Market Simulation Challenge x Dublin (with Virtu Financial) — Nov. 2024 – Nov. 2024
University of Toronto - Rotman School of Management — Python, Pandas — *Dublin, IE*
- Placing within the top 10% of challengers, generating over \$1M+ PNL and minimal exposure
- Evaluating the profitability of tender offers and establishing a decision to generate profits
- Implementing a momentum based trading strategy using data retrieved from RIT API & RTD links

Imperial College Qube Research & Technologies Algothon — Nov. 2024 – Nov. 2024
Imperial College London - AlgoSoc — Python, Pandas, JavaScript — *London, UK*
- Placing within top 50 participants in allocating anonymised CTA strategies to a portfolio
- Implemented portfolio optimisation paper considering CVaR to obtain positive Sharpe ratio.

IMC Prosperity Market-Making Challenge — Apr. 2024 – May. 2024
IMC Trading — Python, Pandas — *Remote, UK*
- Achieved a top 10 ranking in the UK and top 2% globally from 10,000 competitors worldwide
- Executed trading strategies like mean reversion, swaps, and ETF arbitrage to capture price discrepancies in different fruits and manage risk and beat other market-makers to grow our island

SKILLS, AWARDS & HOBBIES

Awards: UK BeBras Computational Thinking Challenge - Gold, UKMT Junior/Senior Maths (Silver/Gold x3)
Languages: Python, JavaScript, Lua, C# (latter two for game development)
Hobbies: Swimming, table tennis, programming and reading