

EDUCATION

University of Cambridge

Incoming MAST Mathematical Statistics (Part III)

Cambridge, UK

2022–2023

University of Warwick

BSc Mathematics

Coventry, UK

2019–2022

- Expected first-class honours (1st): first year 90.0%, second year 84.4%
- Relevant coursework: Intro to Mathematical Finance, Mathematics of Machine Learning, Bayesian Forecasting and Intervention, Intro to Mathematical Statistics, Stochastic Processes, Probability Theory

WORK EXPERIENCE

DRW

Incoming Quantitative Trading Analyst Intern

London, UK

Jun 2022–Sep 2022

Mako Trading

Trading Intern

London, UK

Jul 2021–Aug 2021

- Attended options classes, scored 100% in exams covering strategies, Greeks, hedging, portfolio building etc.
- Produced a macro research report, formulated and trained a Bayesian election forecasting model, won prize
- Wrote an object-oriented Python tool that efficiently calculates key metrics given a time series of trades
- Played market-making simulator and open outcry trading games, acquainted myself with market dynamics
- Attended lectures on quant research, verified consistency of a trader's model with Black-Scholes assumptions

Warwick Mathematics Institute

Undergraduate Researcher

Coventry, UK

Jun 2020–Sep 2020

- Investigated how advancements in ML may be applied to controlling liquid films under Dr Radu Cimpéanu
- Implemented my novel idea of reframing control problems as games for deep reinforcement learning to attack
- Obtained a 20% improvement over classical methods with limited hardware, time and parameter tuning
- Wrote high-performance Navier-Stokes simulations in C, analysed and visualised data in Python and R
- Studied fluid dynamics, numerical analysis, and PDEs independently in preparation for the project

Cede

Co-founder, CTO

Coventry, UK

May 2020–May 2021

- Co-founded a start-up enabling students to deliver parcels quickly and safely to other students for a fee
- Led the programming team, planned key features, delegated tasks, handled architectural concerns
- Performed market research, contributed to the business plan, interviewed candidates, pitched for funding
- Designed the pricing algorithm, collected analytics data to inform business and technical decisions
- Chose the MERN stack, worked with databases, TypeScript, git, unit/integration testing, and CI

Jane Street (cancelled due to COVID-19), Flow Traders

Insight Programmes

London, UK; Amsterdam, The Netherlands

2020

- Accepted onto Jane Street's inaugural program after playing a mathematical game against employees
- Attended lectures on ETFs and FX, learned about Flow Traders and the wider industry, played trading game

ADDITIONAL INFORMATION

Awards: International Mathematics Competition 2021 Silver medal, Warwick IMC 2021 TST top scorer

Scholarships: £20,000+ in academic scholarship awards for secondary school

Programming: Python (pandas, matplotlib, sklearn etc.), C++, R, JavaScript et al. Solid DS/A

Languages: English, Hindi (native), French, Irish, Bengali (basic)

Societies: Careers Officer @ Warwick Statistics Society, Warwick Crypto Society

Interests: Chess (2000+ bullet), Competitive Rowing (university team), Jazz Guitar