

## **EDUCATION**

# UNIVERSITY OF CAMBRIDGE – Master's in Computer Engineering (specialised in ML & AI) Oct. 2021 – Jun. 2025

- 4<sup>th</sup> year modules: Deep Learning & Structured Data, Computational Statistics & Machine Learning (ML), Probabilistic ML, Data Structures & Algorithms, Data-driven & Learning-based methods in mechanics and materials.
- 4<sup>th</sup> year project: 'Physics-Informed Machine Learning for populational inverse problems', comparing Hierarchical Bayesian models to Sliced-Wasserstein distance minimisation with Prof. Girolami.
- Honours Pass with Merit.

#### LYCEE INTERNATIONAL DE LONDRES WINSTON CHURCHILL – French Baccalaureate Sept. 2018 - Jul. 2021

- 18.75/20 overall with Highest Honours (Mention Très Bien avec Félicitations du Jury).
- Mathematics (19.8/20); Further Mathematics (19.5/20); Physics & Chemistry (19/20); Computer Science (19/20).
- Ranked 5<sup>th</sup> in Northern Europe at the French Mathematical Olympiads (2021).

## **EXPERIENCE**

#### TRADEWEB – Python and C++ Developer Intern (London)

Jun. 2025 - Aug. 2025

Extending existing full-stack application using Python Flask backend and TypeScript Angular frontend

#### **QUBE RESEARCH & TECHNOLOGIES – Trading & Risk Management Academy**

Feb. 2025 – Present

- Attended weekly 3h lectures covering Markowitz portfolio theory, risk management frameworks, and cross-sectional return prediction models in quantitative finance.
- Implemented techniques for robust covariance matrix estimation including Ledoit-Wolf shrinkage, PCA dimensionality reduction, and correlation-based approaches to address the challenges of matrix invertibility and estimation error.
- Analysed multi-factor trading strategies including momentum (Jegadeesh-Titman), low-beta premium (Frazzini-Pedersen), and value-based approaches.

## **ROBECO – Quantitative Fixed Income Researcher Intern (Python) (Rotterdam)**

Jul. 2024 - Aug. 2024

- Created new market sentiment indicators from earnings call transcripts using Natural Language Processing.
- Coded backtester from scratch to evaluate strategy performance and robustness for stocks and corporate bonds.
- Ranked #1/17 in Robeco's Trading Game with 49.3% annualized return, where I developed a systematic multi-factor trading strategy for US equity.

## ISDA – Quantitative Analyst Intern (Python) (London)

Jul. 2023 - Sept. 2023

- Conducted data cleaning for derivatives market time-series data using Python.
- Optimized existing VaR calibration code by 6-fold through queuing, vectorization, and JIT compiling.
- Presented results to senior stakeholders.

#### **QOMPLY** (FinTech) – Technology Intern (Python) (London)

Jul. 2022 – Sept. 2022

- Manipulated and cleaned large datasets of OTC derivative products across asset classes.
- Developed FX services for currency pairs using SQL, covering over 60 different currencies.

## RJ O' BRIEN (Global Brokerage firm) - Transaction Reporting Associate (London)

Jul. 2022 – Sept. 2022

• Within the Qomply internship, worked with OTC trading datasets including 30 million records.

Selected for Trading Workshops at Citadel, Optiver, IMC, Da Vinci, Flow Traders, Cubist/Point72, Marshall Wace

## **PROJECTS & AWARDS**

#### Ranked #1/35 in annual Cambridge University Algorithmic Trading Challenge

Feb. 2023

• Developed an algorithm trading equities, treasuries, cryptocurrencies, and options using different strategies (minimum volatility portfolio, carry, momentum, and tail-risk hedging). Presented to peers and competitors.

## Hawks' Charitable Trust Award (Associated with Uni. of Cambridge)

2022, 2023 & 2024

• Awarded for sporting achievement coupled with strong academic attainment.

## **SKILLS & OTHERS**

**Python**: pandas, numpy, sklearn, pytorch, tensorflow, jax, polars, pyarrow, numba, scipy, statsmodels, pytest, asyncio, cython. **Programming:** C++, MATLAB, SQL, MongoDB, Git, Web Development (Django, Dash), Redis.

Machine Learning: DeepLearning.AI Machine Learning Specialization (Supervised Machine Learning: Regression & Classification, Advanced Learning Algorithms, Unsupervised Learning: Recommenders, Reinforcement Learning); Intro & Intermediate Machine Learning (Kaggle)

**Data Science:** Applied Data Science Lab (World Quant University); Pandas, Intro to SQL, Feature Engineering (Kaggle) **Finance:** Bloomberg Market Concepts, Akuna Capital Options 101

Languages: English & French bilingual, limited working proficiency in Japanese & Spanish.

Leadership & Volunteering: Secretary of Cambridge University Algorithmic Trading Society; Publicity Secretary & Vice Captain of Cambridge University Swimming Club; Member of Beta Sigma Club (International Quant Finance Student Society)
Swimming: Full Blue (highest honor for a Cambridge sportsman), 2x University Record Holder, silver medal at 2019 English Summer Nationals.