Toby Chen

Website | Email | 07714 387919 | GitHub | LinkedIn

EDUCATION

BSc Hons in Mathematics | 1st (Expected) | Queen Mary University of London
London

Pure & Computational Mathematics. Notable modules include *Numerical Programming in C and C++*, *Partial Differential Equations* and *Probability & Statistics*.
09/2023 – 06/2026

CertHE in Mathematics & Physics | 1st (Achieved) | Heriot-Watt University
Edinburgh

Advanced level mathematics and physics courses. Notable modules include *Programming in Java* and *Academic Presentations & Seminars*.
09/2022 – 06/2023

EXPERIENCE

Financial Analysis
TobyChenFinance - Personal

Author financial analysis on Substack. Wrote recent piece about effect on gilt yields given Labour potentially breaking manifesto.
2025

Algorithmic Trading Developer
TOADTrade2 - Personal

Python trading app with custom backtester, quant signals (momentum, mean reversion), and portfolio optimisation.
2025

Fullstack Developer
Portfolio Website - Personal

Built a website with React using TS to display my work in an RPG style pseudo-game.
2025

Data Engineer
Data Annotation - Work

Work as a data engineer focusing on data preprocessing, annotation & review for machine learning models. Build test suites on Docker to validate model performance.
2023 – Present

Maths Teaching Assistant
Cantell School - Experience

Assisted during lessons to help with maths work. Also tutor maths for A-levels & MAT.
2024

Immersive Labs CTFs
Immersive Labs - Challenge

System forensics for Unix & Linux systems. System & network penetration. Experience includes analysis of $MBS & elevating privileges. Experienced with Kali Linux.
2022

AWS Summit
Amazon - Event

Ran a Gnome-Linux system on AWS. Attended summit to learn how to deploy cloud systems.
2023

SKILLS & INTERESTS

Programming
Python, C#, C++, Java

Lifetime programmer. Understand OOP, functional and procedural programming. Best language is Python. Second is C++. Favourite project is Python trading algorithm.

Mathematics
PDEs, Stats, Chaos

Strong maths skills. Applied & axiomatic understanding of stats, calculus & numerical methods.

Trading
Statistics, Analytics

Invest in financial instruments. Understand and use technical analysis. Use statistical methods to analyse data. Understand PDEs like Black-Scholes.

Politics & Finance
Podcasts, Financial Times

Follow politics and related news for markets. Read and listen to related content like *The Rest is Politics*. Currently reading *Mrs Thatchers Economic Experiment* by William Keegan.

Linux & DevOps
Arch, Bash, Docker, AWS

Use Arch Linux (BTW). Containerisation, version control and cloud via personal projects and work. Understand system security for Linux & Windows.

Pentesting & Security
OWASP, Crypto

Completed CTFs and bug bounties. Understand vulnerabilities and security practices. Deep comprehension of cryptography via number theory.

Sports
Confidence

National kickboxer. Play rugby and BJJ at university. Train in MMA, looking to compete. Sports scholar at college and university. TASS athlete for sports England.