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

A levels in Maths, Computer Science & Biology | C, B, B | Brockenhurst College
Brockenhurst
A-levels in Mathematics, Computer Science & Biology. Notable experience includes *GCSE Chinese*.
09/2020 – 06/2022

EXPERIENCE

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

Algorithmic Trading Developer
TOADTrade2 - Personal
Python trading app with custom backtester, quant signals (momentum, mean reversion), and portfolio optimization (HRP, shrinkage MVO) with transaction cost modeling.
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

Finance Blog
TobyChenFinance - Personal
Document financial research and analysis of current and past events. My aim it to further my understanding of financial services and educate others.
2025

Immersive Labs CTFs
Immersive Labs - Challenge
Completed 5 level 8 CTFs. Worked on many different CTFs Cyber Security challenges.
2022

AWS Summit
Amazon - Event
Attended the summit to learn about cloud computing trends and services related to AWS.
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.

Trading
Statistics, Analytics
Invest in stocks and crypto. Understand technical analysis, fundamental analysis and market microstructure. Use statistical methods to analyse data. Understand PDEs like Black-Scholes.

Mathematics
PDEs, Stats, Chaos
Strong maths skills. Applied & axiomatic understanding of stats, calculus & numerical methods.

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.

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.

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.