

DAOHONG LIU

+44 (0)7303098547 | daohong.liu@ccc.ox.ac.uk

EDUCATION

University of Oxford

Mathematics and Computer Science

Oxford, UK

2024 – 2027

- **Relevant Modules:** Algorithms and Data Structures, Computer Networks, Statistics, Probability, Models of Computation, Analysis, Linear Algebra, Continuous Mathematics, Machine Learning

Experimental High School Attached to BNU

AP, Gaokao

Beijing, China

2021 – 2024

- **Examinations** (equivalent to A-Level): SAT: 1580/1600; AP Exams: AP Scholar with Distinction. Scored 5/5 in 8 subjects
- **GPA:** 95/100 (unweighted)

EXPERIENCE

TSL Projects Ltd

Systems Intern

Gerrards Cross, UK

Jul 2025 – Aug 2025

- Designed and developed in-house systems from scratch now used by more than 800 employees across the company
- Consolidated legacy spreadsheets into a centralised internal platform, significantly improving data consistency
- Digitised manual workflows in procedures such as project tracking, reducing delays in communication
- Communicated with staff across departments to gather requirements and collaborated with colleagues on feature design
- Led the full development cycle from architecture and database design to deployment and maintenance
- Integrated Microsoft OAuth for unified secure authentication across all internal platforms
- Designed and implemented a RESTful API for frontend–backend communication and created templates to streamline future development
- Built a robust permission control system for managing user access across departments
- Implemented using React, Django, PostgreSQL, ShadcnUI, and TailwindCSS

PROJECTS

Agent Scaffold Generalisation Research | EA Oxford

2026

- Authored a research report on whether LLM agent scaffold performance generalises across models of different capabilities and generations, funded by EA Oxford
- Implemented an evolutionary scaffold search to discover and compare high-performing scaffold architectures
- Found moderate cross-model agreement in scaffold rankings, and that more elaborate scaffolds do not consistently outperform simpler baselines

Optiver Oxford Trading Academy Trading Algorithm | Optiver

2026

- Developed a real-time trading algorithm as the key technical contributor in a team of three
- Ranked 2nd out of more than 50 teams, winning each of us a pair of AirPods Pro
- Gained exposure to arbitrage, market making, options trading and other high-frequency trading strategies

Competitive Programming Officer | Oxford University Computer Science Society

2024

- Selected challenging algorithmic problems for weekly competitive programming contests
- Managed a £600 per term budget for prizes and events, coordinating with society members, sponsors and speakers

USA Computing Olympiad (USACO) Platinum | Competitive Programming Contest

2023

- Reached Platinum level, placing among the top 5% of participants, demonstrating advanced problem-solving abilities in algorithms and data structures
- Developed and optimised competitive programming solutions using C++ and Python

TECHNICAL SKILLS

Programming Languages: C++, Python, Java, Haskell, Scala, Swift, JavaScript, HTML/CSS

Developer Tools: Git, VS Code, Docker

Spoken Languages: English (native), Chinese (native), French (fluent)