

Leixin Gong

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EDUCATION

Imperial College London | BEng Mathematics and Computer Science

September 2024 – June 2027 | London, UK

- John and Rita Henke Scholarship for £12,500 per annum for the duration of the degree
- Mathematics and Computer Science first-year wellbeing representative
- Member of Investment Society, Algorithmic Trading Society, Badminton Society

Wilson's School | Secondary Education

September 2017 – June 2024 | London, UK

- A* A* A* A* achieved in A-level Mathematics, Further Mathematics, Computer Science and Physics
- House Captain and President of Computing Society

EXPERIENCES & HACKATHONS

BlackRock | Spring Intern, Software Engineering

April 2025 | London, UK

- Spearheaded and delivered a comprehensive research project analysing how cloud computing infrastructure can enhance Aladdin platform capabilities and operational efficiency, specifically in Aladdin Wealth Technology
- Excelled in rigorous daily technical assessments, demonstrating exceptional algorithmic problem-solving capabilities and advanced programming skills through complex HackerRank challenges
- Engaged with senior leadership while participating in departmental rotations to understand BlackRock's diverse business units and technology ecosystem, including compliance, Alpha Gen (quant team) and AI

IC Algothon | Quant Hackathon

November 2025 | London, UK

- Selected for Europe's largest algorithmic trading hackathon competing against top UK universities
- Developed portfolio optimisation algorithms using APIs (Slack, Google) and Selenium for live data
- Worked on quantitative trading challenges with exposure to industry leaders like HRT, IMC and QubeRT

IBM Z Datathon – 2nd Place in London | Hackathon

October 2024 | London, UK

- Developed and implemented an ML model to detect fraudulent financial transactions, achieving 97.68% accuracy
- Collaborated to clean data, optimise model performance and recorded a presentation over a 24-hour period
- Leveraged IBM Z platform's capabilities to process and analyse large-scale transaction data
- Achieved 2nd place in London, winning £250, access to IBM's LinuxOne server, a 3-month mentorship with an IBM ambassador and invited to talk at a GSE UK conference

PROJECTS

Assembler and Emulator (AArch64) | C Project

May – June 2025

- Engineered a two-pass assembler supporting 50+ A64 instructions (data processing, memory ops, branching), label resolution, and .int directives, compiling assembly to executable binaries
- Developed a full ARMv8-A emulator in C simulating AArch64 execution, implementing 31 general-purpose registers, 2MB memory, and pipeline stages (fetch-decode-execute) with little-endian byte ordering
- Designed GPIO interaction for Raspberry Pi 3B: Configured memory-mapped registers (GPFSEL, GPSET/CLR) to control LED circuits via A64 assembly, achieving hardware-level signal timing
- Implemented automated testing via ARM toolchain (aarch64-none-elf) and custom test suite, validating 30+ edge cases for instruction correctness and memory alignment
- Led a 4-person team using Git workflows and delivered LaTeX report detailing the assembler and emulator designs

Derivative Calculator | NextJS Project

December 2023 – February 2024

- Developed a sophisticated online symbolic differentiator, showing advanced proficiency in web app development
- Engineered an app that has a user-friendly interface allowing input of mathematical expressions, that provides step-by-step explanations of differentiation, incorporating a visual aid feature, presenting the initial expression graphically alongside interactive tangent lines, offering a dynamic visualisation of the differentiation process
- Achieved full marks (70/70) in the OCR A-level Computer Science NEA Project

SKILLS & INTERESTS

- **Programming Languages:** C, C++, Python, JavaScript, TypeScript, Kotlin, Java, Haskell, HTML, CSS
- **Other Skills & Technologies:** Git, Linux, NextJS, ReactJS, Microsoft Office, SciKit, TensorFlow, Docker, LaTeX
- **Soft Skills:** Great interpersonal communication skills, in English and Chinese
- **Interests:** Poker, Boxing, Electric guitar, Badminton, Photography, Powerlifting (115kg bench)