

# Christian Garry

MSc Scientific Computing | Probability · Statistics · Optimisation | C++/Python | Quantitative Methods  
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## Education

**MSc Scientific Computing & Data Analysis (AI for Engineering)** Durham, United Kingdom  
**Durham University** Sep 2025 – Present

- **Modules:** Bayesian ML (Foundations/Unsupervised; Regression/Classification), Optimisation & Control for AI, Deep Learning for Engineering, HPC/GPU Programming, Performance & Vectorisation.

**MEng Electronic Engineering** Durham, United Kingdom  
**Durham University** Sep 2020 – Jun 2024

## Key Skills

**Maths & Optimisation:** Probability & statistics; Numerical methods; Convex/non-linear optimisation; Decision-making under uncertainty; Experimental design & fast iteration.

**Systems & Performance:** HPC/GPU; Simulation & automated testing; Networking (IEC 60870, DNP3).

**Machine Learning:** Bayesian inference; Regression & classification; Unsupervised learning (clustering, PCA); Deep learning for engineering; Model evaluation & calibration; robustness & traceability; RAG/LLM pipelines.

**Programming:** C++, Python, SQL, C, C#, MATLAB.

## Experience

**Industrial Tutor** Durham, United Kingdom  
**Durham University, Department of Engineering** Sep 2025 – Present

- Lead weekly design tutorials; mentor teams on scope, feasibility, Gantt planning, and design reviews.
- Mark feasibility and final submissions; deliver quantitative, structured feedback on clarity, rigour, and justification.
- Coach teams through feasibility-driven decision-making: surface assumptions and specifications, test them, and retire designs that fail cost, risk, or performance constraints.

**Graduate Communications Engineer** Hebburn, United Kingdom  
**Siemens PLC** Sep 2024 – Present

- Built latency-sensitive C/C++ stacks for industrial relays (TCP/IP, IEC 60870, DNP3).
- Designed Retrieval-Augmented Generation (RAG) pipeline (Python, Qdrant, LLM) with retrieval evaluation and end-to-end tracing/diagnostics; cut engineer time-to-answer by over 99%.

## Projects & Research

**Alternative Digital Asset Market Analytics & Trading Research** Durham, United Kingdom  
**Independent Project** Aug 2025 – Present

- Ongoing research into pricing, liquidity, and market microstructure across major CS2/CS:GO marketplaces.
- Building a unified data pipeline and normalised dataset for robust, execution-aware backtesting.

**Silicon Carbide JFET CPU** Durham, United Kingdom  
**Master's Dissertation** Oct 2023 – Apr 2024

- Built custom 4-bit CPU in LTspice from SiC JFETs for extreme temperature and radiation environments.
- Developed complete toolchain: C-like compiler (C++), assembler, and Python automation scripts.

## Leadership, Activities & Interests

**Leadership:** Bishops Diocesan College Fencing Team Captain; Durham Fresher Representative (2022–23).

**Activities:** Durham University Fencing Team; Counter-Strike (team strategy); Boxing (Student Fight Night).

**Interests:** Market analysis projects (alternative digital assets); investing/trading strategy exploration; AI/software experiments; real estate and rental markets.

**Achievements:** Weldon le Huray Fencing Scholarship (2020–24); South Africa U17 Fencing Champion; President's Award (Gold).