

Maximilian Adam

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Education

Imperial College London | London, England **October 2022 – June 2026**

MEng in Computer Engineering (EIE), 1st

Relevant Modules: Cryptography and Coding Theory, Deep Learning, Statistical Signal Processing

Highgate School | London, England **July 2022**

A Levels: Further Mathematics A, Physics A*, Chemistry A*, Mathematics A**

Experience

Veriphi Labs | Research Intern, London, England **August 2025 – September 2025**

- Worked on Fully Homomorphic Encryption (FHE) for Multi-Party Computation (MPC).

Nova Systems Int | Simulation Intern, Farnborough, England **August 2024 – September 2024**

- GPS and satellite simulation using Lua and C++.
- Simulated highly complex conflict scenarios.

Tekever | Machine Learning Intern, Southampton, England **August 2023 – September 2023**

- Achieved a significant improvement in object detection model performance.
- Enhanced model robustness via data cleaning, transformation, and visualisation.
- Collaborated with team throughout to define and meet model performance goals.
- Provided write-ups for all key areas worked on, summarising viability and effectiveness of each idea involved.

Williams Formula One | Data Analyst Intern, Grove, England **June 2023 – July 2023**

- Developed and implemented a tool to visualise wind tunnel data on key metrics.
- Improved and implemented real-time functionality for live streaming car simulation data.
- Worked with the team to finalise the creation of a platform used to improve the manufacturing pipeline.
- Presented the platform and displayed the efficiency gains to internal staff.

Projects

- Developed and documented various projects: RL 3D in-hand manipulator, Compiler, neural network mini library, balancing robot, CPU in Verilog, agentic environments, and various ML models.
- Enjoy engaging in diverse competitions and challenges: CTFs, Hackathons, Monthly Puzzles, Tournaments.
- Love researching and learning about ideas in cryptography, quantum gravity, machine learning architectures, and consciousness.
- Currently working on post-quantum cryptography using remarkable lattices. Leveraging the structure of the E_8 Lattice, its efficient decoding for CVP-type problems and its connection to the LIP/Module LIP problem to improve sampling speed in cryptographic signatures.

Skills & Interests

- Programming Languages: Python (Pandas, scikit-learn, PyTorch, TensorFlow), C++, MATLAB, SQL, Lua, XML, Go, Rust, C.
- Areas of Expertise: Statistical Analysis, Machine Learning, Simulation, Cryptography.
- Spend most of my free time playing Piano, Boxing and Climbing.