

Archie Eltherington

London | archie.eltherington@icloud.com | 07533 425194 | linkedin.com/in/archieeltherington
github.com/archieelth

Education

Imperial College London , Electrical and Electronic Engineering	Sept 2024 - June 2027
• First class, top 30% of class • Key coursework and projects include designing hardware in system verilog. Building and testing analogue circuits. Using both to implement signal processes. Control Engineering applications in power electronics and	
Northampton School for Boys , A-Levels	Sept 2022 - June 2024
• A*A*A*A in Maths, Further Maths, Physics and Chemistry	
Malcolm Arnold Academy , GCSEs	Sept 2017 - June 2022
• 10 GCSEs with grades 7-9, including six grade 9s	

Experience

Commodity trading intern , RWE Supply and Trading, Swindon	June 2025
• Gained insight into real-time energy market decision-making by shadowing traders. • Contributed to in-depth analyses supporting commodity trades in gas and coal • Led the planning and execution of a simulated freighter voyage to fulfill trade agreements	
Integration Engineer , Imperial Racing Team, London	October 2025 -
• Deployed custom electronics including testing and debugging for functionality.	

Projects

FPGA AI Inference Accelerator	github.com/archieelth
• Created parameterization neural network implementation on an FPGA, enabling a highly parallelised hardware architecture. • Trained on a python implementation to generate weights. • MNIST dataset inferences generated in 1.5ns on 2 layers of 10 neurons compared to 100x + of the same implementation in python	
Circuit Detector App	github.com/archieelth
• Built an application to convert hand-drawn circuits into SPICE netlists and bills of materials using multiple layers of computer vision models • Generated synthetic datasets with Python scripts, then fine-tuned models on real hand-drawn data to improve accuracy	
Driving Rover with Custom Sensors	github.com/archieelth
• Designed RF, IR, and ultrasonic sensors on a custom PCB to integrate with a rover chassis • Developed a web-based control interface and firmware for the rover using the ESP32 • Acted as project lead: managed task breakdown, scheduling, and procurement of parts	
Automotive Restorations	
• Rebuilt and fully restored engine, including modifications to air intake systems and re-jetting carburetors for improved performance. • Applied electronics expertise to design replacements for outdated parts, significantly improving reliability compared to the original components.	

Skills

Software C++, Python, MATLAB, System Verilog, Quartus Prime

Hardware and Tools LTSpice, Oscilloscope, PCB design, FPGA verification