Jadon Mensah

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Education

University of Cambridge
Engineering *Oct 2024 — July 2027*

- Took courses on topics including **computing**, **mathematics** and **digital electronics**.
- Labs: 3D CAD modelling with **SolidWorks**, independent electronics project (accelerometer-controlled synthesizer)

Work Experience

Placement Student July 2023 — Aug 2023
Science and Technology Facilities Council *Rutherford Appleton Laboratory*

- Implemented signal processing techniques using **Python** to remove noise from X-ray detector output.
- Compared multiple noise removal and signal reconstruction techniques, culminating in a presentation of my findings.

Projects

SM83 CPU Emulator (github.com/miscv32/dmg) May 2025

- Implemented a Nintendo Game Boy CPU (Sharp SM83) emulator in **Rust**, with full instruction-level accuracy.
- Verified behaviour against a large set of tests.

CHIP-8 Interpreter (github.com/miscv32/supercool.ch8) April 2025

- Wrote an interpreter in **C** for the CHIP-8 programming language.
- Verified behaviour against a comprehensive set of test ROMs.

AQA Assembly Interpreter (github.com/miscv32/AQA-Assembly-Interpreter) Nov 2024 — Dec 2024

- Wrote an interpreter in **C++** for the ARM-like assembly language used in A-level computer science exams.

Cribs++ (github.com/AKCircuit/AIHackathon) March 2025

- Developed the front-end for my team's hackathon project using **JavaScript** and **React**.
- Cribs++ was a platform for students to view hints for homework questions.
- Supervisors could view which hints were used, and use this to plan time with students more effectively.

Extracurricular Activities

Cambridge University Robotics Society Oct 2024 — April 2024

- Member of "Wise Angel" autonomous drone team.
- Modelled antenna propagation for drone's ground station using **MATLAB** Antenna Toolbox.

C2C Capture The Flag Competition Feb 2025

- Online challenge-based cyber security competition for university students.
- Placed in the **top 16%** of competitors, qualified for in-person finals.

Skills

- **Programming languages**: Rust, C++, C, Python, JavaScript, MATLAB
- CAD (SolidWorks)
- Electronics prototyping
- **Version control**: Git