

TECHNICAL PROJECTS & INVOLVEMENT

KARMAN SPACE PROGRAMME

Imperial College London

08/2025 - Current

South Kensington, London

- Designed and implemented **EMBEDDED AVIONICS SYSTEMS** using microcontrollers and **CUSTOM REAL-TIME SOFTWARE** for guidance, navigation, control and data acquisition.
- Led the integration and calibration of multiple **FLIGHT SENSORS** (IMUs, barometers, thermocouples) to deliver reliable real-time data for **FLIGHT CONTROL AND RECOVERY INITIATION**.
- Managed **SIMULATIONS, PROTOTYPE MODEL ANALYSIS AND TELEMETRY EVALUATION** workflows, producing actionable reports that drove engineering design decisions.

IMPERIAL COLLEGE LONDON ROCKETRY

Imperial College London

10/2023 - 07/2024

South Kensington, London

- Led the electronics division's circuit design using **KICAD** to implement circuits for both **ROCKET AVIONICS** and **GROUND STATION HARDWARE**.
- Managed collaboration workflows with **GIT/GITKRAKEN**, ensuring seamless integration across the electronics and airframe team.
- Developed **CAD-BASED SIMULATIONS** to optimise component placement and system reliability, directly improving launch performance and mission success.

BADMINTON

Extracurricular

10/2022 - Current

England

- Coaching and competing in doubles county badminton.

AWARDS

IBM DATA SCIENCE PROFESSIONAL CERTIFICATE

Coursera

10/2024

Online

- I developed proficiency in **PANDAS, NUMPY, MATPLOTLIB** and **SEABORN**, while leveraging **SQL** for advanced data handling.
- I completed projects on **REAL-WORLD DATA COLLECTION, ANALYSIS** and **PREDICTIVE MODELLING** using **SCIKIT-LEARN**.
- I designed **DASHBOARDS** with **DASH & PLOTLY**, and produced reports in **JUPYTER NOTEBOOK** integrating **SQL QUERIES**.

WON CGCU ENGINEERING HACKATHON

Imperial College London

05/2024 - 05/2024

South Kensington, London

- Led the Arduino team in **ONE OF EIGHT** competing groups, successfully **DESIGNING AND IMPLEMENTING** an original solution to an engineering problem.
- Developed an Arduino-based system enabling **PLANTS TO COMMUNICATE THEIR NEEDS** (water, nutrients) via a **NETWORK OF SENSORS**, combining **ELECTRONICS** and **SOFTWARE DESIGN**.

BEST IN ENGINEERING 6 CONSECUTIVE YEARS

Bourne Grammar School

05/2016 - 05/2022

Bourne, Lincolnshire

- Recognised as a **LEADER IN ENGINEERING** for six years showing constant **INNOVATION** and superior results in projects and solutions whilst improving the curriculum.