

# DHRUVA TEJA TURAGA | Curriculum Vitae

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🐙 GitHub • 🔗 LinkedIn • 🌐 Project Portfolio

## EDUCATION

### IMPERIAL COLLEGE LONDON | MENG AERONAUTICAL ENGINEERING

10/2023 - Current | London

**Subjects** Mechanics, Materials, Mathematics, Structures, Thermodynamics, CNM, Aerodynamics, Turbomachinery, Mechatronics, Flight Dynamics, Engineering Practice

### BOURNE GRAMMAR SCHOOL | SECONDARY EDUCATION

09/2016 - 06/2023 | Bourne

**A-Levels:** Mathematics A\*, Computer Science A\*, Physics A, Further Mathematics A, EPQ

**GCSEs:** 11 x Grade 9, 1 x Grade 7

## EXPERIENCE

### TECHNICAL FELLOW | INXPORATUS TECHNOLOGIES

06/2025 - 09/2025 | London

- Led the **ELECTRONICS TEAM** to manage, design and implement **POWER DISTRIBUTION SYSTEMS, ACTUATOR CONTROL** and **SENSOR TELEMETRY** for next-gen autonomous underwater vehicles.
- Managed cross-disciplinary collaboration with **MECHANICAL** and **DATA VALIDATION** teams, driving **CAD DEVELOPMENT** of new robotic prototypes and performance assessments.
- Developed Ollama **ML MODELS** to automate telemetry interpretation **REDUCE TELEMETRY ERROR BY 24%** and enhance real-time **DATA RECONNAISSANCE** for experimental field trials.

### STUDENTSHAPERS INTERN AND UG TEACHING ASSISTANT | IMPERIAL

07/2024 - 10/2024 | London

- Worked on advanced virtual reality applications for the **DYNAMIC MODAL ANALYSIS OF FREE OSCILLATION STRUCTURES**, from beams to entire aircraft.
- Mastered the **C#** language in **UNITY** and the innovative, cutting-edge **VIRSE** framework.
- Developed and tested VR techniques to simulate **STRUCTURAL EFFECTIVENESS**, contributing to Imperial's 2nd Year research and curriculum.

### PYTHON DATA ANALYST | COMPARE THE MARKET

06/2022 - 07/2022 | Peterborough

- Developed hands-on expertise in **DATA CLEANING, MANIPULATION** and **VISUALISATION** with **PANDAS** and **MATPLOTLIB**.
- Applied statistical models to real-world datasets, delivering actionable insights and **INCREASING BUSINESS EFFICIENCY BY 8%**.

## TECHNICAL PROJECTS

### KARMAN SPACE PROGRAMME | IMPERIAL

08/2025 - Current | 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

10/2023 - 07/2024 | 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 BY 20%**.

## SKILLS

#### PROGRAMMING LANGUAGE FRAMEWORKS & IDES LIBRARIES DESIGN

**Experienced:** Python 3 | MATLAB | C++ | Kotlin | Java | SQL |  $\LaTeX$  | C#  
Excel | Git | Raspbian | LINUX | Jupyter | Pycharm | Android Studio  
Matplotlib | Numpy | Pandas | Seaborn | Dash | Scikit-learn | PyTorch | SciPy  
SOLIDWORKS | Fusion360 | CATIA | KiCAD | CircuitWizard | 3D Printing

## AWARDS

### IBM DATA SCIENCE PROFESSIONAL CERTIFICATE

10/2024

### WON CGCU ENGINEERING HACKATHON | IMPERIAL

05/2024 - 05/2024 | London

### BEST IN ENGINEERING 6 CONSECUTIVE YEARS | BOURNE GRAMMAR SCHOOL

05/2016 - 05/2022 | Bourne