

DHRUVA TEJA TURAGA | Curriculum Vitae

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🐙 GitHub • 🔗 LinkedIn • 🌐 Project Portfolio

SUMMARY

Aeronautical Engineering student at Imperial with experience in avionics, mechanical systems and data-driven simulation. Recently worked as an avionics engineer at one of London's leading AUV startups driven by a passion for advancing technology and solving problems in new and unique environments. Currently working with Karman Space Programme, applying avionics and airframe design to next-gen rockets.

Explore my portfolio through the link above.

EDUCATION

IMPERIAL COLLEGE LONDON

MEng Aeronautical Engineering

Subjects: Mechanics, Materials, Mathematics, Structures, Thermodynamics, CNM, Aerodynamics, Turbomachinery, Mechatronics, Flight Dynamics

10/2023 - Current

South Kensington, London

BOURNE GRAMMAR SCHOOL

Secondary Education

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

GCSEs: 11 x Grade 9, 1 x Grade 7

09/2016 - 06/2023

Bourne, Lincolnshire

EXPERIENCE

TECHNICAL FELLOW

InXploratus Technologies

- 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.

- Designed and developed early-stage **ML MODELS** to automate telemetry interpretation and enhance real-time **DATA RECONNAISSANCE** for experimental field trials.

06/2025 - Present

Kensington & Chelsea, London

STUDENTSHAPERS INTERN AND UG TEACHING ASSISTANT

Imperial College 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 innovative VR techniques to simulate **STRUCTURAL EFFECTIVENESS**, contributing to Imperial's research and curriculum.

07/2024 - 10/2024

South Kensington, London

PYTHON DATA ANALYST

Compare the Market

- Developed hands-on expertise in **DATA CLEANING**, **MANIPULATION** and **VISUALISATION** with **PANDAS** and **MATPLOTLIB**.

- Applied statistical models to real-world datasets, delivering actionable insights to optimise business operations.

06/2022 - 07/2022

Peterborough, UK

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

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/GITKRACKEN**, 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.