

Naishil Vaishnav

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Profile

Second-year Mechanical Engineering student at Teesside University seeking a placement opportunity for 2026. Skilled in CAD modelling with experience in machining, welding, circuit design, Python, Excel and MATLAB. Eager to apply my technical knowledge and problem-solving skills in a professional environment while contributing to innovative engineering projects.

Education

Teesside University – Middlesbrough, UK

BEng Mechanical Engineering (Honors), Second Year

September 2024 – May 2027

- Passed Year 1 with full 120 credits
- Relevant Modules: Materials & Sustainability, SolidWorks, Thermodynamics, Fluid Mechanics, Electrical Principles.

English School Foundation – West Island School - Hong Kong

September 2022 - June 2024

- International Baccalaureate Diploma Programme (IBDP) – HL Physics, Maths AA and Business
- Relevant Modules: Computer Science - Python

Technical Skills

- **CAD & Design Software:** SolidWorks, NX
- **Electrical:** LTSpice, Proteus and Soldering used to create circuits for IMechE design challenge
- **Programming:** Python, MATLAB, Excel
- **Workshop & Manufacturing:**
 - Lathe & milling machine were used for chamfering and straight turning parts
 - Pedestal drill & Centre drill used to create holes in parts so it can be fit for assembly
 - MIG welding for assembly of parts

Projects & Experience

- IMechE Design Challenge 2025
 - Collaborated with a team of 6 to design and build an autonomous model car using only analog components, within a £50 budget.
 - Proteus and LTSpice were used to design the circuit, which was then built on a breadboard.
 - SolidWorks was used to design the chassis and the gear system for the wheels which were then 3D printed.
 - Selected and sourced switches, motor, LEDs and other supporting electrical components based on compatibility and cost constraints.
 - Secured 3rd place amongst the cohort.
- Compressed Air Engine
 - Interpreted and worked from provided engineering drawings to build and assemble a functional compressed air engine.
 - Modelled and assembled the engine in SolidWorks and used motion simulation to verify correct component movement.
 - Machined parts using lathe (turning and chamfering) and pedestal drill with centre drilling to make accurate holes on parts to be fit for assembly.
 - MIG welded the base components to secure the engine's structure.
 - Followed workshop safety protocols and handled machinery under supervision in a professional lab environment

- Conducted Performance tests on the engine at varying air pressures, data was collected and plotted on a graph to evaluate the engine's operational reliability.

Certifications

- MATLAB

Voluntary Work & Extracurriculars

- PASS leader for Engineering Mathematics module and working with other students to plan lectures and exercises to provide support to year 1 students with the subject.
- Worked with fellow students teach English to young, disadvantaged kids at Hong Kong Red Cross JFK Centre through collaboration and teamwork.
- Active member of the university's chess society, holding 1000 ELO.