

Yousuf Shahabuddin

Email: yousuf.shahabuddin24@imperial.ac.uk

Portfolio: design.yousufshahabuddin.com

Education

Imperial College London, Design Engineering, MEng

2024 – 2028

- 2nd Year Student. Modules completed: Maths, Mechanics, Computing, Data Science, Human-Centred Design, Design Engineering Principles, Electronics, Materials & Manufacturing.
- Design Engineering Principles: 71% | Human-Centred Design: 70% | Electronics: 70%

King Edward VI Grammar School, Chelmsford

2017 – 2024

- A-Levels AAAAB in Maths, Physics, Design & Technology, EPQ, Chemistry
EPQ: "To what extent can Supersonic Commercial Aviation be Revived?"
- 13 GCSEs | 9 9's / 10 A*'s

Experience

Automotive Mechanic- Imperial College Eco Marathon Team

Oct 2025 – Present

- **Mechanic team** for my university's **Shell Eco Marathon team**. Building the most efficient EV- travel as far as possible with the least amount of energy expenditure.

STEM Muslims Design Engineering Academic Representative (at Imperial College)

Sep 2025 – Present

- **Representing my department** to help students academically, hold workshops and tutorials to help them academically, and ensure they transition into university-studying well.

Chief of Vision & Strategy Cover, Tech Oversight, FirstGenDoctors

Jul 2025 – Present

- **Leading strategy, idea generation, and event planning.** Collaborating with multidisciplinary teams to launch scalable outreach initiatives, aiming to help students and professionals advance/get into the medical world.
- Designed & building their **new website**.

Freelance Tech Procurement

Aug 2024 – Present

- Customer-centric approach: Successfully advised numerous students, family members, and other individuals on purchasing technology that best suits their specific needs and budgets.
- Product knowledge: Developed a comprehensive understanding of a wide range of laptops, iPads, and phones, enabling me to **provide informed and effective recommendations**.
- Developed **my own frameworks** for tech purchasing based on budget, performance, and users' specific needs.

Mathematics, Science, and Design Tutor

Dec 2022 – Present

- Clear communication: Honed my ability to explain complex concepts in a **clear and concise** manner to students aged 11-18.
- Built **strong rapport** and interpersonal skills through one-on-one tutoring sessions, fostering a positive and encouraging learning environment.
- Self-employed under Latimer Tuition since March 2025, demonstrating a commitment to professional development.

InvestIN Summer Engineering Experience

Aug 2023 – Aug 2023

- **Won best pitch** for EV recharging and energy redistribution concept.
- Designed & tested aerofoils to achieve a maximum angle of attack using a water tunnel.
- Led a team in a Dragon's Den style pitch event to a panel of investors.

LEGO Group Work experience

Aug 2022 – Aug 2022

- Conducted user research for mobile UX.
- **Published meta descriptions** for major LEGO products and categories.
- Contributed to **circular economy** meetings, and suggesting sustainable initiatives
- Created processes to **improve LEGO's social media** engagement.

Projects

British Airways Data Science Job Simulation - Forage

- Completed a virtual project simulating the work of a BA Data Science team.
- Analysed customer review data to identify insights and trends.
- Built a predictive model in Python to understand buying behaviour
- Developed PowerPoint deliverables to communicate findings to a business audience

Chimp Game & “Martian” Hexadecimal Communication Robot

- Chimp memory game with LED sequences accessed via an app.
- Recreated a robotic system inspired by “The Martian” to point to hexadecimal characters. Simulated Earth-Mars relay.
- Used: ESP32, MicroPython, electronics

NEXUS- Multiplayer Dance Game for concert queues

- Designed (as a group of 5), a dance game on a large screen with motion tracking, for people in concert queues to engage with each other, dance, and have fun.
- Virtual dance characters modelled, game programmed with MediaPipe and Unity.
- Extensive research and **prototyping** carried from idea to final prototype.

AquaMorph- trainers that transform into diving flippers

- Aimed at casual divers and swimmers to **encourage water exploration**, by improving the convenience of having 2-in-1 shoes.
- Product was sketched, modelled and prototyped as a proof of concept.

R.C Glider & Collision-Avoidance Robot

- Installed and tested sensors and controls to operate the glider.
- Created and coded a crash-avoidance robot for use ideally in small crawl spaces.

Drinks Dispenser for Café

- Created a drinks dispenser for my client “MEDD” café, a small chain in Jeddah, Saudi Arabia, to allow baristas to focus on serving specialty coffee, rather than serving customers who simple, pre-made beverages. **Modular** drip tray for “hot-swappable” aesthetics, cleaning and repairs. Magnetic opening to allow for easy access to staff for maintenance.
- Woodworking to produce the final product. **Sketched**, modelled with **CAD**, **prototyped**.

Portfolio Website Creation

- design.yousufshahabuddin.com is my own website that I created for my portfolio. I constantly update it when I can, improving the aesthetics, layout, and adding my work to it.

Leadership Experience

University Tours

Mar 2025 – Present

- Delivered tours to offer holders and prospective students & families; **represented my department** and ensured all questions from prospective students and their families were answered and well informed about the university.

Scouts Leadership

Sep 2022 – Mar 2025

- Assumed a key role in **developing and implementing the curriculum**, ensuring the smooth running of weekly sessions. Designed weekly curriculum, mentored Scouts, and ran sessions.
- Awarded **Jack Petchey Award** for outstanding contribution.

Skills

- Technical: LaTeX, Python, MATLAB, Adobe InDesign, MicroPython, CAD (Fusion 360), Figma, HTML
- Business: Market strategy, product research, user insights, entrepreneurship
- Other: F1, Archery (local competition winner), Rock Climbing, Aviation enthusiast, Global travel planner.

Interests

- Stock Market & Fintech - 50%+ return in simulated accounts; now active real-money trading.
- Aviation Systems - Passionate about commercial aviation tech and design.
- Automotive industry- F1, simulated gearboxes, rental karting.
- Climbing NICAS Lvl 4, Archery, Free diving
- Duke of Edinburgh Gold (completing soon)