

CHANG GAO

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EDUCATION

Imperial College London

MEng Design Engineering

London, UK

Sept.2023 – Jun.2027

Coursework: Material and Manufacturing, Industrial Design Engineering, Finite Element Analysis, Sustainable Design, Thermofluids, Electronics, Physical Computing, Data Science, Human-centred Design, Business Economics

Ealing International School

A-levels: Mathematics (A*), Further Mathematics (A), Physics (A), Chemistry (A), EPQ (A)

Dalian, China

Mar.2021 – Jul.2023

GCSEs: Mathematics A (9), Mathematics B (9), Business (8), Physics (8), English As A Second Language (7)

Honors & Awards:

Top 25% Distinction of Euclid Contest - Apr.2022

Global Gold Award of British Physics Olympiad Senior Physics Challenge - Mar.2022

INTERNSHIP EXPERIENCE

Reuse Foundation

Summer Intern

London, UK

Jun.2024 – Aug.2024

- Conducted in-depth research on global reuse solutions and sustainable materials, analyzing their feasibility, cost-effectiveness, and scalability in manufacturing and supply chain applications.
- Developed a structured database of reuse practitioners, supporting manufacturers in identifying sustainable material suppliers and integrating eco-friendly alternatives into existing production workflows.

Robert Bird Group

Spring Intern

London, UK

Apr.2024 – May.2024

- Assisted in the design, engineering analysis, and material selection for structural components, ensuring feasibility for efficient fabrication, cost reduction, and streamlined assembly processes.
- Conducted material sustainability analysis, comparing manufacturing efficiency, durability, and environmental impact of recycled steel and low-carbon concrete for large-scale applications.
- Utilized AutoCAD and Revit to optimize digital prototypes, refining structural designs to align with manufacturing constraints, material availability, and energy efficiency goals, improving resource utilization and waste minimization.

EXTRA-CURRICULUM

REDESIGN: Women's Health Hackathon

Apr.2024

- Collaborated with an interdisciplinary team to address gender gaps in healthcare by focusing on innovative solutions, while attending expert-led workshops and talks on user-centered design and healthcare technology.
- Developed a prototype for a healthcare product aimed at improving women's health outcomes, incorporating feedback from mentors and judges to refine the design and functionality.

Imperial College Summer School - Aerospace Station Design Challenge

Dec.2022 – Jan.2023

- Managed a team to analyze lunar surface conditions, assess material options for aerospace station construction, and designed station doors in 2D via Procreate, followed by 3D modeling using CAD and Rhinoceros software.
- Accomplishments encompassed sensor installation in a space simulation, optimizing an AI system for the space station, and facilitating productive team meetings leading to a group accolade for our presentation delivery.

3D Prosthetic Printing

Jul.2021 – Aug.2021

- Proficiently mastered core mechanical principles and limb model design, while successfully leading a team of four to prioritize adaptable sketch designs and enhance limb joint flexibility through innovative brainstorming sessions.
- Employed Rhino modeling and relevant slicing software to gain proficiency in 3D printing, assembling finger and joint components and also assisted a left-arm amputee volunteer, receiving exceptionally positive feedback.

PROFESSIONAL SKILLS

Languages: English (Proficient), Mandarin (Native), German (Basic)

Programming: Excel, python, MATLAB, HTML, CSS

Design Software: Figma, Adobe CC, CAD (Solidworks, Rhino, Fusion 360)

Interests: Fashion Design, LEGO, Piano (CMA level 10), Specialty Coffee (SCA Certified Barista), Sketching