

# CALLUM OLIVIER HARGROVE

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second year design engineer studying at Imperial College London, with an interest in the design process for engineering-related ideas.

## EDUCATION

### UNIVERSITY 2021-2025

#### RELEVANT MODULES

**IMPERIAL COLLEGE LONDON**  
MEng Design Engineering  
2nd year, overall average: 73.22%

> physical computing > engineering mathematics > scientific computing > materials & manufacturing > thermofluids > sustainable design engineering > solid mechanics > human-centred design engineering

### SECONDARY SCHOOL 2014-2021

**LATYMER UPPER SCHOOL**  
A LEVELS in DESIGN (A\*),  
MATHEMATICS (A\*), PHYSICS (A),  
FURTHER MATHEMATICS (A)

## TECHNICAL SKILLS

### PROGRAMMING

highly competent at engineering-related programming in python, matlab and c++, curated on github, latex

### DESIGN

experienced in UX/UI design using figma and adobe indesign, illustrator, photoshop and premiere pro

### 3D MODELLING

adept at 3D modelling using softwares fusion 360, solidworks and blender

### WEB-DEV

experienced in web-app development using html, css (with bootstrap), javascript and webflow

### LANGUAGES and OTHER

english (native); french (competent)  
highly proficient in clothing design using CLO 3D and digital media marketing

## RELEVANT EXPERIENCE

### AIRE: NEXT GEN AIRBAG WEARABLES

HUMAN CENTRED DESIGN ENGINEERING

03/2022

aire is a puffer jacket providing safety for children doing extreme sports by inflating upon impact - detected via an accelerometer and inflating using a CO<sub>2</sub> canister. I modelled the physics of the jacket inflating before producing a looks-like prototype.  
*clo 3d > adobe indesign > user-centred design > wearables*

### ESCAPE.

IMPERIAL "CITIES OF TOMORROW" MAKEATHON

02/2022

escape is a solution developed by our team of three to tackle pollution and greenery in urban areas by implementing urban seating areas - providing greenery and shelter from the elements, using noise cancellation technology and speakers.  
*fusion 360 > adobe illustrator > rendering > UX/UI design > teamwork*

### MACHINE LEARNING: LINEAR ALGEBRA

COURSERA

09/2022

to improve my understanding of generative adversarial networks, I undertook this course on machine learning. under the supervision of sam cooper, I undertook this course and developed programs based upon the foundational mathematics.  
*mathematics > python > matlab > machine learning > gan's > research*

### UNDERGRADUATE TEACHING ASSISTANT

DYSON SCHOOL OF DESIGN ENGINEERING

09/2022 - CURRENT

helping out first-year design engineers in weekly tutorial sessions, covering three modules: engineering mathematics, materials and manufacturing and scientific computing by interacting with students, reinforcing skills and providing advice.  
*undergraduate teaching > mathematics > computing > materials & manufacturing*

### TEAM MEMBER, COACH

RAVENSWALL CLIMBING CENTRE

07/2022 - CURRENT

working part-time, primarily coaching junior/ adult sessions. I help with customer service, sales and upkeep of the centre. through this work, I've achieved my outdoor first aid, and am working towards being an accredited climbing coach and routesetter.  
*climbing > leadership development > sales > sports coaching > volunteering*

### DIGITAL MARKETING MANAGER

DESIGN ENGINEERING SOCIETY

09/2022 - CURRENT

being in charge of all digital marketing outlets, running the instagram and updating the website. as well as managing a team of designers, this role involves UX/UI design, using figma to collaborate and design each post and story, as well as using webflow.  
*social media digital marketing > webflow > management > figma*

### CLIMBING TEAM CAPTAIN

IMPERIAL MOUNTAINEERING CLUB

09/2022 - CURRENT

from competing in regional/national competitions and organising london lead climbing competitions to running open weekly sessions for team members. I joined team members on a bouldering expedition in iceland in the summer of 2020.  
*leadership > sports coaching > iceland bouldering expedition > latex*

## ACHIEVEMENTS

### UNDERGRADUATE TEACHING ASSISTANT ROLE

TOP-10 STUDENTS IN ENGINEERING MATHEMATICS MODULE

05/2022

achieved top-10 students in the engineering mathematics module in first-year, getting 81.15% in the module.

### ROOFE PRIZE FOR DESIGN & TECHNOLOGY, BASF DESIGN PRIZE, COMPUTER SCIENCE PRIZE

LATYMER UPPER SCHOOL

06/2021, 06/2020, 06/2019

received academic prizes in physics and computer science and prizes in design - focused on my a-level coursework on origami-folding portable solar panels.

### ARKWRIGHT ENGINEERING SCHOLARSHIP

THE SMALLPIECE TRUST

06/2019

achieved an engineering scholarship, granting me £600 for engineering related projects.