

## Education

### Imperial College London - Integrated Masters (MEng), Design Engineering

**(2017-2021)**

- Graduated with Upper Second Class Honours.
- 30 modules with an emphasis on creativity, development of technological products and group collaboration.
- Modules covering: Human Centred and Industrial Design; Mathematics; Production and Materials; Electronics; Programming; FEA; Biomimetics; Mechatronics; Robotics; Optimisation; IoT; Additive Manufacturing.
- Masters Project: Title: 'Designing a learning environment to supplement nonverbal communication in videoconferencing'. A HCI project developing a software interface that incorporates automatic nonverbal behaviour feedback tools to offer practise and evaluation of nonverbal communication in video-conferencing. Aiming to improve wellbeing by allowing users to maximise use of available nonverbal bandwidth.

### St Josephs College Sixth Form - 1A\*,2A,1B, A-Levels

**(2015-2017)**

- A\*AAB (Mathematics, Further Mathematics, D&T: Product Design and Physics respectively).
- Worked with an industrial manufacturing company during A2 Product Design to produce a key part of the project.

## Achievements

- Duke of Edinburgh's Awards (Bronze, Silver)
- Tech Prize 6<sup>th</sup> Form

## Interests

- See portfolio ([www.robgarland.co.uk](http://www.robgarland.co.uk))
- Recreational Interests: Mountaineering, Skiing, Rugby, Cricket, Motorsport, Cycling, Racketlon, Golf, eSports and Video Production.

## Voluntary Work

- Kibblestone Scout Camp - Den Team: Maintenance of Scout Camp - stationed for 2-3 days at a time.
- Care for Alzheimers Patient: Helped look after the care and wellbeing of a gentleman suffering with late stage Alzheimers.

## Languages

- English (native)
- German (limited working)

## Experience

### Elusive Parts - Design Engineer

**(Mar 2020 - Jan 2021)**

- Initially joined on a 6-month placement as part of my MEng degree, transitioned to part-time following resumption of my studies.
- First employee of an early start-up looking to reproduce NLA and hard to find classic car parts using state of the art 3D scanning techniques and 3D printing.
- Oversaw the development of the business, from developing the reverse engineering process to front-end design (website, customer interactions).
- Corresponded with outsourcers for manufacture of parts that could not be completed in house.
- Produced and finished multiple parts from collecting the 3D scan to finishing and delivering the final piece.

### Redspeed International - Product Development

**(Jul 2019 - Sep 2019)**

- Provided direction and guidance for a new vehicle speed enforcement system by developing concepts for the housing, internal layout and functionality of a new camera head.
- Visits made to manufacturers to pitch the concepts and discuss feasibility and production.

### Optimise Automotive - Work Experience

**(April 2014)**

- Valuable insight into a small business specializing in bespoke automotive interior trim and upholstery during my GCSE studies. Learned many hands-on practical skills.

## Skills

Sketching	
Prototyping	(Pruza/Ender 3, Arduino, Raspberry Pi, Adobe XD)
Additive Manufacturing	(3D Scanning, Polymer/Metal Processes)
Programming	(Python, Arduino, MATLAB)
Front End Development	(HTML5/CSS3, JS)
CAD	(Solidworks, Fusion360, Quicksurface)
FEA	(Solidworks, Fusion360)
Graphic Design	(Adobe InDesign, Photoshop, Illustrator)
Rendering	(Blender, Keyshot, Solidworks Photoview)
Video and Animation	(Adobe Premiere Pro, After Effects)
Administration	(MS Office)
Presentation Skills	
Teamwork Skills	