

EDUCATION:

PhD in additive manufacturing for orthopaedic implants at Imperial College London (3rd year) **Oct 2016 – Present**

Involves the investigation of 3D printed titanium structures for use in hip and knee replacements.

– **Year 1 and 2 Autumn: Design, Art and Creativity assistant tutor**

Helped to run a 3rd and 4th year undergraduate MEng level course, requiring teaching of software and design thinking, as well as providing logistics. Importantly required the provision of critical feedback for students so that they could improve their design project and develop as design engineers.

MEng Mechanical Engineering at Imperial College London **Oct 2012 – June 2016**

First Class Honours

Previous courses include Mathematics, Thermofluids, Stress Analysis, Materials, Mechatronics, Embedded C for Microcontrollers, Finite Element Analysis, Machine System Dynamics and System Design and Optimisation

– **Year 3 Autumn/Spring: Shell Eco Marathon**

Team Principal overseeing the collaboration of 14 students towards an ultra lightweight endurance vehicle powered by a hydrogen fuel cell, as part of Imperial Racing Green. Our team designed and built the chassis using FE analysis in ANSYS, as well as CFD analysis of our proposed low-drag outer shell.

Mill Hill County High School London **Sep 2005–2012**

3 A Levels: A*A*A in Maths, Further Maths and Physics, with an A in Art AS level (taken June 2012)

11 GCSEs: 8 A*'s and 3 A's (taken June 2009)

EMPLOYMENT:

Student Fusion Catalyst at Autodesk **July 2016 - Feb 2018**

A role conducted for Autodesk to be the first contact at Imperial College in using their new program Fusion 360, a 3D modelling software. Quickly established and taught a 4-week crash course in the program to be run through the Imperial College Advanced Hackspace, accessible by any Imperial students or staff. Has run for over a year and equipped over 160 students with the skills to do 3D modelling.

Also worked with British manufacturing companies to consult on new software/hardware workflows.

EXPERIENCE:

GCSE and A-level Maths and Physics tutor **2016 - present**

Brought all students to an A or A* level for Maths and Physics GCSE, and working on A-level students currently.

Design Assistant at Sensible Object Studio **Aug - Oct 2015**

Designed a family of balancing blocks that are used in the physical/digital hybrid game Beasts of Balance. Involved rapid prototyping using 3D printers to iterate towards the perfect blocks, with a balance of playability and design sensibility. Exhibited at Somerset House and now available in the Apple Store and John Lewis.

ACTIVITIES:

Imperial College Advanced Hackspace and Makerspace **2014 - 2015**

Active member, contributing a self-built ceramic 3D printer for use by the student community. Help teach CAD and design skills as part of the Maker Challenge student outreach program for 14-18 year olds, who are interested in STEM subjects.

SKILLS & INTERESTS:

Technical: Proficient in SolidWorks, Rhino 3D, Grasshopper, Fusion 360, SketchUp, MATLAB, Microsoft Office and Adobe Creative Suite. Intermediate knowledge of Blender, Arduino and C. Able to teach any of the above 2D and 3D design programs confidently.

Languages: Intermediate knowledge of French.

Interests: Enjoy music, especially jazz. Play the keyboard, sometimes performing small gigs at various venues, busking or recording. Created an internet radio station with friends to curate favourite artists. Hope to one day build my own Roland T-303 synth from scratch.