Paul Cohen – Curriculum Vitae

179 Algernon Road, London, SE13 7AP, UK – **UK Citizen**|| +44 7733109345 || paulcohen95@gmail.com || Portfolio: <u>www.pauljcohen.com</u>

Education October 2013 – June 2017 Emmanuel College, University of Cambridge, Mechanical Engineering M.Eng.

Years 1 and 2 Courses:

Design Projects:

Mechanics **Linear Systems** Structures Electronics E.M. Materials

Structural project

Safety Product Design

Integrated Design Project to design, build and test an

Thermodynamics Mathematics autonomous mobile robot vehicle **Masters Project:** Developing open-source 3D bioprinting system for organ-on-chip applications

Year 1 Grade: Class I Year 2 Grade Class I

September 2015 - May 2016 Massachusetts Institute of Technology, Mechanical Engineering (Cambridge-MIT Exchange)

Fall Semester: Spring semester:

2.009 -The Product Engineering Process 2.70 - Precision Product Design

6.01 -Introduction to EECS 2.017 -Design of Electromechanical Robotic Systems

Introduction to Finite Element Analysis Design and Manufacturing II

English 60 -Migrations: Fictions of America 2.821 -Selection and Processing of Structural Materials

(Harvard course)

G.P.A: 4.9 out of 5.0

A Levels: Maths (A*), Further Maths (A*), Physics (A*), Chemistry (A*) GCSES: 12 A*s

Experience

Intern, Frazer-Nash (Midhurst)

12 weeks 4th July - 23rd September 2016

Frazer-Nash is a precision engineering and design company that specialises in the food industry. Worked in both the drawing office and on the factory floor. Responsibilities included:

- Developing the concept design for a novel hollow 3D printed horseshoe. Modelling in Autodesk Inventor and Magics; setting up and running builds on Renishaw AM250 SLM machine; working closely with stakeholders to inform design.
- Turning parts on a manual lathe from engineering drawings. Included various materials (stainless and alloy steels, aluminium bronze, aluminium), to tolerances as low as 0.013mm.
- Detailing engineering drawings of parts and assemblies, to be machined in house.
- Writing case studies on metal additive manufacturing capabilities; involved support structure experimentation.

System Integrator, '2.009 - The Product Design Process' at MIT

Fall semester 2015

Led product development for an innovative climbing device, as part of team of 22 students.

- Chaired team meetings; organised subteams; designed and prototyped concepts; managed \$6500 budget.
- Fielded technical questions from audience of 1100. Voted 2nd out of 8 teams by audience.
- Obtained provisional patent on technology.

Intern, Global Maritime Consultancy Ltd. London

8 weeks 4th August - 26th September 2014

A marine, offshore and engineering consultancy. Based in the Design department, working with Naval Architects, Civil Engineers and Draughtspersons. Projects undertook included:

- Using Autodesk Inventor to create parametric models to be used in concept design visualisations.
- Investigating the stress analysis capabilities of Inventor compared with GeniE, by recreating a crane pedestal in each programme and applying systematic tests.
- Verifying and modifying calculation tools for vessel structure design.
- Applying quality assurance controls to ensure compliance with American Bureau of Shipping classifications.

Volunteer, Union Cycle Works

September 2011 - August 2012

I was a volunteer mechanic at a cooperative bicycle workshop in Deptford, which ran every Saturday. The workshop raises money to help train disadvantaged people as mechanics, giving them personal, practical and social skills. I was involved in renovating parts and assembling them into full bicycles, to be sold as bespoke builds to raise money for the co-op.

Work Experience Student, Brompton Bicycles Ltd

5th-16th July 2010

Brompton Bicycles manufacture distinctive folding bicycles. I worked in marketing, sales, human resources, design and the workshop. I was responsible for designing certificates for company training, as well as bicycle repairs in the workshop.

Skills and

Awards

Languages French (A2/B1) Python

Matlab

3D Modelling Solidworks Autodesk Inventor MasterCAM

Creo

GeniE

Competencies Mechanical Design Mathematical Analysis Project management 3D Modelling

Awards Ash Senior Scholarship Wallace prize Rowley Mainhood prize College prize (Emmanuel) **Other Achievements** Grade 7 piano Grade 5 music theory

Excel VBA Frank Marriott Scholarship ADINA Magics Mill & Lathe machining

Interests

I am a keen cyclist, rock climber and bike polo player. I enjoy listening to jazz, tinkering with bicycles, reading, spending time in museums, and exploring new cities.

References

Available upon request