Paul Cohen – Curriculum Vitae

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Education

October 2013 - Present **Emmanuel College, University of Cambridge, Mechanical Engineering M.Eng.**

Years 1 and 2 Courses:

Mechanics	Structures	Electronics
Linear Systems	E.M.	Materials
Thermodynamics	Mathematics	

Design Projects:

- Structural project
- Safety Product Design
- Integrated Design Project to design, build and test an autonomous mobile robot vehicle

Masters Project: **Developing 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:

2.009 –	The Product Engineering Process
6.01 –	Introduction to EECS
2.092 –	Introduction to Finite Element Analysis
English 60 –	Migrations: Fictions of America (Harvard course)

Spring semester:

2.70 –	Precision Product Design
2.017 –	Design of Electromechanical Robotic Systems
2.008 –	Design and Manufacturing II
2.821 –	Selection and Processing of Structural Materials

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.

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.

Student, Smallpeice Trust Computing and Microelectronics course **July 2012**

The course took place at Southampton University, where I spent 3 days working in a team of 5 to design, build and programme an autonomous robot to take part in a competition with other teams' robots. My responsibilities were:

- Designing the robot with the rest of the team, and fabricating out of plywood, Meccano and aluminium.
- Calibrating the motors and assisting with writing the computer program in Python.

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	3D Modelling		Awards	Competencies	Other Achievements
French (A2/B1)	Solidworks		Ash Senior Scholarship	Mechanical Design	Grade 7 piano
C++	Autodesk Inventor		Wallace prize	Mathematical Analysis	Grade 5 music theory
Python	MasterCAM		Rowley Mainhood prize	Project management	
Matlab	GeniE	Creo	College prize (Emmanuel)	3D Modelling	
Excel VBA	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