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: 3D bioprinting at the nanoscale, for microfluidic 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**

Experience

Intern, Frazer-Nash (Midhurst) **4th July – 23rd September 2016**

A precision engineering and design company that specialises in the food industry. I worked in both the drawing office and on the factory floor. Jobs I undertook 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 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 **4th August – 26th September 2014**

I was based in the Design department, and worked with Naval Architects, Civil Engineers and Draughtspersons. Jobs I undertook while there 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 **4th August – 26th September 2014**

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 a producing certificates for a company workshop, as well as variety of repairs on bicycles in the workshop.

Interests

I am a keen cyclist, rock climber and bike polo player. I am part of the Ecohouse initiative student society, which designs and constructs cheap temporary housing in South America.

Skills and Achievements

Languages	3D Modelling		Awards	Competencies	Other Achievements
French	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			

References

Available upon request