

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 ➤ Structural project ➤ Safety Product Design
Linear Systems E.M. Materials ➤ Integrated Design Project to design, build and test an autonomous mobile robot vehicle
Thermodynamics Mathematics
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)
G.P.A: 4.9 out of 5.0
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
- **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' Fall semester 2015**
Led development of 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 undertaken 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	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	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