# Paul Cohen – Resume

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## Objective

Hard-working and highly motivated final-year Masters student, with key strengths in CAD modelling, structural analysis and project management. Intend to pursue a career in the areas of product, mechanical, and machine design.

## Education

**October 2013 – June 2017** **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**

## 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. Jobs 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 farriers 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. Parts passed inspection and were deployed.
- 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 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 | 3D Modelling | | Competencies | Awards | Other Achievements |
|---|---|---|---|---|---|
| French (A2/B1) | Solidworks | | Mechanical Design | Ash Senior Scholarship | Grade 7 piano |
| C++ | Autodesk Inventor | | Mathematical Analysis | Wallace prize | Grade 5 music theory |
| Python | MasterCAM | | Project management | Rowley Mainhood prize | |
| Matlab | GeniE | Creo | 3D Modelling | College prize (Emmanuel) | |
| Excel VBA | ADINA | Magics | Mill & Lathe machining | Frank Marriott Scholarship | |

## 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