

# Paul Cohen | Mechanical Design Engineer

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*Hard-working and highly motivated mechanical design engineer, with key strengths in CAD modelling, structural analysis and project management. Pursuing a career in the areas of product and machine design.*

## Employment

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### Alloy Product Development

San Francisco CA, USA

*Mechanical Engineer*

Nov 2017 – Nov 2018

Alloy Product Development is a mechanical design consultancy based in San Francisco, California. They specialise in innovative mechanism design and tightly-packaged consumer electronics, working at all stages of the product development process. Responsibilities and activities included:

- Ownership of a complex mechanical subsystem for 9 months, designed to withstand high environmental stresses. Liaising with vendors in China, managing quality control and tooling modifications.
- Prototyping new designs and test rigs in metal, plastics, and wood using hand-tools, CNC machines and additive manufacturing processes.
- Working with a range of clients, from mature startups to Fortune 50 companies.
- Performing tolerance analyses to support EVT-style build of a tightly-packaged electronics product prototype.
- Designing and building custom test rigs to validate client engineering requirements; writing scripts in Python for automatic data analysis and presentation.
- Extensive use of top-down 'master modelling' practices in Creo 3.0 CAD software and use of ANSYS FEA software.

### Frazer-Nash Midhurst

Petersfield, UK

*Mechanical Engineering Intern*

Jul-Sep 2016

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

- 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.

### Global Maritime Consultancy Ltd.

London, UK

*Engineering Intern*

Aug-Sep 2014

A marine, offshore and engineering consultancy. Based in the Design department, I worked to develop design tools to streamline their quotation process. This included creating parametric CAD models for quick visualisations, as well as a spreadsheet to automatically check compliance with safety standards.

## Education

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### Emmanuel College, University of Cambridge

Cambridge, UK

*M.Eng. Mechanical Engineering, Distinction*

2013–2017

Covered a general engineering syllabus for the first two years, before specialising in mechanical design in the final year. Achieved 1st class grades in all years.

### Massachusetts Institute of Technology

Cambridge MA, USA

*Cambridge-MIT Exchange, GPA 4.9/5.0*

2015–2016

Specialised in mechanical design and manufacturing, including precision machine design, finite element analysis, electromechanical system design, and design for manufacturing, as well as an English literature course at Harvard.

## Skills

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#### Languages

- Python
- C++
- Matlab
- Excel VBA
- French (B1)

#### 3D Modelling

- Solidworks
- Creo
- Autodesk Inventor
- ANSYS
- MasterCAM

#### Competencies

- Mechanical Design
- Project Management
- CAD modelling
- Injection Molding
- Mill & Lathe machining
- Prototyping
- Vendor management
- Client liaison
- Tolerance analysis
- QA inspection