

# JOSHUA JONES | RESUME

Programme Manager, Mechanical Engineer, and Software Developer

**Currently:** Programme Manager, Aston Martin Lagonda  
**Edu:** M.Sc. Mechanical Engineering & Management, University of Sheffield  
**Tech:** Python, JavaScript, Matlab, VBA, Electron.js, Vue.js, node.js  
**Software:** Solidworks, Ansys CFX, FLUENT, Sketch, Keyshot, Blender

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## Experience

### Programme Manager - Aston Martin Lagonda

2017 - Present

(MSProject, VBA, Advanced Excel, Python)

- Managed new product development and manufacturing introduction for Aston Martin DB11 Volante and DB11 AMR models.
- Led cross functional teams in generating solutions to design, manufacturing, marketing, and supply chain problems
- Coordinated vehicle programme team through senior management gateway reviews Building the business case to proceed through the gateway based on progress reports and risk management of outstanding deliverables.

### UX User Experience Designer - The University of Sheffield

2016 - 2017

(Sketch.app, HTML, CSS, JS)

- Conducted user experience interviews with a broad range of academics to understand their needs and motivations when searching for information about European research funding
- Developed a number of "Horizon 2020" webpages based on user interview feedback.

### Product Designer & Engineer (Solidworks) - Freelance

2016 - 2017

- Developed product solutions to aesthetic and technical requirements for niche vehicle manufacturers.
- Used design thinking to produce bespoke components for the automotive industry matching homologation requirements and existing product design language.
- Worked from concept to production as an end to end service provider covering all aspects of design, testing, and supplier sourcing.

### Mechanical Design Engineer (Solidworks) - Burnertech Combustion Engineering

2016 - 2016

- Designed ultra low CO2 and NOx burner heads for power generation and water and air heating applications from 50kW to 2.2MW and helped to develop documentation for patent applications.
- Worked with international clients to trace project progress in testing and troubleshoot performance issues, leading to optimised designs as Project manager and lead design engineer
- Evaluated the use of Computational Fluid Dynamics simulation software to improve the aerodynamic performance of the burner, work led to improved product knowledge from real world comparison testing.
- Reviewed and initiated a new product introduction process to improve the transition between development and production engineering functions.

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## Experience

**Mechanical Engineer (Python + CREO + ANSYS)** - Cummins Turbo Technologies

2014 - 2015

- »» Performed internal flow analysis using CFD to model compressor stage air flows and performance.
- »» Employed design of experiments, and response surface methodologies to produce an optimisation tool.
- »» Determined optimal geometry configurations from model and managed prototype production and testing.
- »» Explored best practice for Business social network integration through user experience design, for 900 engineers.
- »» Developed a custom tool to efficiently handle 100k-1M data points, written in Python to analyse customer data and perform engineering calculations to determine level of risk of low and high cycle fatigue based on duty cycles.
- »» Managed thermal cycle testing, fluid and dye penetrant inspection, and CMM inspection for new components, compiled and presented test reviews and reports.

**Design & Development Engineer (Solidworks)** - High Voltage Partial Discharge

2013 - 2013

- »» Daily use of Solidworks working closely with a senior engineer to develop technology transfer documents and product prototypes. Developed design from customer concepts and requirements, through the design process, purchasing and procurement, assembly and testing, and delivery to customer. Designed mechanical linkage components, bearings, bell cranks, and magnetic actuator assemblies to operate switchgear and circuit breakers.
- »» Managed Purchasing and material acquisition, contacting suppliers and manufacturers, drafting production drawings.

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## Education

**MSc Mechanical Engineering & Management, Merit** - The University Of Sheffield

2016 - 2017

- »» MSc Thesis: Underbody Aerodynamics of Railway Vehicles, characterising the mechanisms of Ballast Flight and Axle Impacts
- »» Reciprocating Engines, Advanced FE Modelling, Aerodynamic Design, Engineering Composite Materials, Advanced Signal Processing, Condition Monitoring
- »» Engineering Research in Industry, Advanced Experiments & Modelling, Design Innovation Management, B2B Industrial Marketing, Technology Strategy and Business Planning, Professional Responsibility of Engineers, Managing Engineering Projects and Risk

**BEng (Hons) Mechanical Engineering, First Class** - The University Of Salford

2012 - 2016

- »» Dissertation: Testing and modelling of a spark ignition internal combustion engine
- »» Industrial Management, Control & Dynamics Engineering, FEA & Structural Mechanics, Thermodynamics & Fluid Mechanics, Manufacturing and Robotics.
- »» Mechanical Group Design Project: Heavy tracked excavator focusing on boom design

