

# Joe Richards, MEng (Hons)

[joe.o.richards@gmail.com](mailto:joe.o.richards@gmail.com) • [www.linkedin.com/in/joe-o-richards](http://www.linkedin.com/in/joe-o-richards)

## Relevant Experience.

---

### Materials Performance Engineer

(May 2025 - Present)

#### Siemens Mobility GmbH.

Eurostar Engineering Centre (London)

- Developed and maintained KPI dashboards to monitor repair loop quality, material performance, and consumption trends, identifying inefficiencies and delivering average cost savings of £7,000 per month.
- Designed and implemented an AI-driven automation tool to generate daily production meeting reports, significantly reducing manual reporting time.
- Integrated train performance data with material repair records to improve traceability and reliability insight, strengthening failure validation processes and ensuring accountability of OEM suppliers.

### Product Design Engineer

(February 2024 - May 2025)

#### William Sugg & Co Ltd.

Horsham (West Sussex)

- Started as the sole engineer, reverse engineering old drawings and workshop patterns to create digital drawings, BOMs and CAD models of the range of heritage lanterns in addition to producing new, bespoke designs.
- Proactively developed & implemented procedures for drawing and file management to prevent errors and duplication of work, improving accuracy and efficiency.
- Designed and project managed bespoke lanterns from concept through to manufacture, integrating client requirements and production feedback to deliver high-quality, cost-conscious solutions on time.
- Managed and mentored a junior design engineer, providing technical guidance, structured feedback, and workload planning to develop their CAD capability and ensure consistent, high-quality output across projects.

### Human Factors Researcher

(December 2022 - July 2023)

#### Newcastle University.

Newcastle Upon Tyne (Tyne & Wear)

- Conducted research on the cognitive processes in fault detection and management of railway overhead lines, resulting in an article published in a **peer-reviewed journal**.
- Independently led one-on-one interviews with senior engineers, researchers, and industry experts, showcasing leadership, professionalism, and interview skills.
- Demonstrated strong written communication by presenting complex data, methodologies and findings in a clear, structured academic format.

### Workshop Assistant

(September 2018 - March 2019)

#### McGrath Maserati.

Kimpton (Hertfordshire)

- Contributed to the completion of concours level automotive restorations with uncompromising quality of work and attention to detail. Learning many practical and technical skills as and when required.
- Showed initiative and decision-making skills by producing engineering drawings or manufacturing parts myself, if they were no longer in production.

## Education.

---

### MEng (Hons) Mechanical Engineering (1st)

(September 2019 - June 2023)

#### Newcastle University.

Newcastle Upon Tyne (Tyne & Wear)

- Passed Stages **1, 2, 3 & 4** with overall marks of **71%, 76%, 77% & 72%** respectively.

#### Notable Modules & Coursework include:

Design & Manufacturing, Advanced Mechanics & Structural Optimisation, Human-Systems Integration, Engineering Mathematics, Thermofluid Dynamics, Electrical Engineering, Control Systems Design.

**(For a full list please request an Academic Transcript)**