

Joe Shade

Joe@JShade.co.uk | +44 (0) 7356 042702

Summary

Engineer and designer with experience in product development, CAD, simulation, manufacturing, tooling and prototyping. Currently completing an MSc in Advanced Manufacturing Engineering with Management at Loughborough University. Individual project: NVH in EV cooling systems, sponsored by Jaguar Land Rover.

Education

MSc Advanced Manufacturing Engineering with Management (Distinction – Predicted) - Loughborough University 2025-2026

Accredited by IED, IET and IMechE.

Modules including manufacturing processes and automation, robotics and control automation, digital and data engineering, machine learning, innovation and entrepreneurship for engineers.

BA (Hons) Product Design with Industry Placement (First Class) - De Montfort University 2020-2024

Accredited by the Institute of Engineering Designers (IED).

Modules including advanced design for manufacture, advanced CAD, design practice, advanced visual communication, and design cultures.

Accolades

UK Petainer Holdings Award - **Winner (2024)**

Design Innovation in Plastics - **Highly Commended (2024)**

DMU Enterprise and Entrepreneurship Sustainability Award - **Winner (2024)**

DMU Enterprise and Entrepreneurship Creative Industries Award - **Winner (2023)**

Experience

Factory Operative, AAV Plastics: Feb 2025 - Sep 2025

- Designed and manufactured injection mould tooling.
- Designed plastic components for production.
- Operated CNC milling and turning machines to produce precision parts to +/-0.01 mm.
- Set mould tools and operated injection moulding machines.
- Continued supporting the business part-time during MSc study.

Simulation Engineer, KartSim Ltd: Sep 2023 - Apr 2024

- Designed and built custom racing simulators.
- Produced manufacturing reports and technical documentation.

- Provided technical support and contributed to product development.

Designer / Design Researcher, De Montfort University: Jan 2023 - Jul 2023

- Researched product development methods and circular-economy design.
- Developed concepts through sketching, CAD, rendering and technical drawing.
- Produced a working prototype and research report.
- Invited to speak at the 2024 International Upcycling Festival.

3D CAD / 3D Printing Technician, FutureFactories: Oct 2022 - Jul 2023

- Produced CAD work for 3D printed artwork, statues and furniture.
- Maintained, upgraded and built custom 3D printers.
- Completed projects from parts sourcing and assembly through wiring, software and firmware configuration.
- Internship extended beyond the original term.

Product Designer, Enterprise Placement Year: Jul 2022 - Jun 2023

- Ran a small product business making electronics including keyboards and speakers.
- Took products from concept to production, including sourcing, manufacturing and customer support.
- Developed commercial awareness and practical understanding of electrical engineering.
- Nominated for the DMUworks Enterprise & Entrepreneurship Awards.

Product Design Work Experience, Cube Company: Jun 2022 - Sep 2022

- Edited product photography in Adobe Photoshop.
- Produced renders and website assets in a studio environment.

Technical Skills

Mechanical design: SolidWorks, Fusion 360, Creo, VISI CAD; technical drawing; assemblies; design for manufacture; physical prototyping

Analysis: SolidWorks Simulation / FEA

Manufacturing and tooling: injection moulding, mould tool design, CNC milling and turning, CAM programming

Electronics and embedded: breadboard prototyping, PCB design, firmware and hardware prototyping, C++

Software and robotics: Python, JavaScript, OpenCV, YOLO, ROS 2; desktop tools, browser extensions and machine-vision workflows

Prototyping and build: 3D printing, modelmaking, assembly, bring-up and validation

Visual communication: Adobe Creative Cloud, KeyShot, rendering, layout and web design

Training: Introduction to Injection Moulding (Sumitomo Demag)