

Junior Manufacturing Engineer

Ryan Walker



EXPERIENCE

Manufacturing Engineering Placement Student, Rolls-Royce, Derby *Jul 2024 – Jun 2025*
Completed a 12-month industrial placement within the fan blade manufacturing facility.

- Led a cycle time reduction project on a 5-axis CNC cell, achieving a **15% reduction** through tool path optimisation and fixture redesign
- Created **18 manufacturing process sheets** and work instructions for new product introduction (NPI) programmes
- Conducted **25+ First Article Inspections (FAIs)** using CMM and hand gauges, documenting results in AS9102 format
- Supported root cause analysis on **8 non-conformance reports (NCRs)** using 8D problem-solving methodology

Workshop Technician (Part-time), University of Sheffield Advanced Manufacturing Research Centre (AMRC), Sheffield *Sep 2023 – Jun 2024*
Assisted research engineers with machining trials and prototype manufacture.

- Set up and operated **3 CNC machine tools** (3-axis, 5-axis, and wire EDM) for research projects
- Manufactured **15+ prototype components** from titanium, Inconel, and aluminium alloys to tolerances of +/- **0.02mm**

CERTIFICATIONS

IMechE Affiliate Member, Institution of Mechanical Engineers *Aug 2025 – Aug 2025*

IOSH Working Safely, Institution of Occupational Safety and Health *Sep 2024 – Sep 2024*

EXTRA CURRICULAR ACTIVITY

Team Member - Sheffield Formula Racing (SFR) *Sep 2022 – Jun 2024*
Designed and manufactured suspension components for the university's Formula Student car.

- Machined **8 aluminium uprights** using CNC milling and contributed to a **14th place finish** at Formula Student UK 2024

PROFILE

Manufacturing engineering graduate from the University of Sheffield with a 12-month placement at a precision aerospace components manufacturer. Contributed to **3 continuous improvement projects** that reduced cycle times by a combined **15%** across CNC machining cells. Proficient in SolidWorks, GD&T, and Lean manufacturing principles with a **2:1 (66% average)** and hands-on experience with CNC programming, quality inspection, and production line support.

EDUCATION

MEng (Hons) Mechanical Engineering (Manufacturing) in Manufacturing Engineering

University of Sheffield, Sheffield
Sep 2020 – Jul 2025

SKILLS

- CNC Programming (Fanuc, Siemens)
- SolidWorks & AutoCAD
- GD&T (BS 8888 / ASME Y14.5)
- Lean Manufacturing & 5S
- Root Cause Analysis (8D, 5 Why)
- CMM Inspection (Zeiss Calypso)
- First Article Inspection (AS9102)
- Process Sheet Creation
- Fixture & Jig Design
- Microsoft Excel & Minitab
- Health & Safety (IOSH Working Safely)
- Technical Drawing Interpretation

LANGUAGES

- English - Native