

Jack Simpson

Mechanical Engineer Student

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22 St Peters Road
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AB39 3RG

PROFILE

I'm a newly graduated Mechanical Engineering student from the University of Dundee, where I was awarded an upper-second class degree (2:1). Passionate about hands-on problem-solving, I have tackled real-world engineering challenges, including optimizing installation methods at Gecko Glazing, reducing installation time by 20-30%. My honours project involved designing and building a robotic arm for a mini-Mars rover, where I balanced constraints like weight, power, and precision. Skilled in SolidWorks for CAD modeling and ANSYS for FEA analysis, I'm eager to apply my technical expertise and practical experience in a dynamic engineering environment.

CONTACT

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PROJECTS AND INTERESTS

Sports - Gym and Hiking (devils' point, Cairn Toul)

Robotic Arm – Designed a 6 DOF robotic arm capable of autonomously collecting samples.

Scribe Block – Fabricated a scribe block from bright mild steel with the use of machine tools (surface grinder, pillar drill, milling machine)

Smaller projects – designed and manufactured simple hand tools such as trowel, wrench, clock using MIG welding and rivets, hacksaws and other hand tools

Computer hardware (building home computers)

SKILLS

HARD SKILLS	SOFT SKILLS
<ul style="list-style-type: none">CAD Software: SolidWorks, Onshape, AutoCAD & Autodesk inventorCFD & FEA analysis: ANSYS workbenchProgramming: MATLAB, C++, Python (Basic)Engineering knowledge: Geometric design and tolerance(GD&T) Mathematics, Tolerance Stack-Up Analysis, Materials Selection, Data Analysis	<ul style="list-style-type: none">TeamworkCommunication (Written & Verbal)Problem-SolvingTime ManagementLeadershipAdaptability

EDUCATION

North East Scotland College

HND Mechanical Engineering

2020-2022

A A

University Of Dundee

BEng Mechanical Engineering

Upper Second Class Degree (2:1)

Honours Project: Robotic Arm for Mini Mars Rover. Designed and constructed a functional robotic arm for a mini-Mars rover platform. This project involved selecting appropriate materials for Martian conditions, designing for specific payload capacity and range of motion. Utilized SolidWorks for 3D modelling and FEA analysis to optimize the arm's structural integrity and performance.

2022-2025

WORK EXPERIENCE

Gecko Glazing - Surveyor and installer

Aug 2024- Jul 2025

- Surveyed and installed secondary glazing systems, ensuring accurate measurements and professional finish.
- Utilized power tools to solve on-site challenges, improving installation efficiency.
- Communicated with customers to understand requirements and provide technical support.
- Reduced installation times by 20% by optimising measuring process

Dominos - Delivery Driver

Feb 2023 – May 2024

- Independent task management, vehicle adaptability, and customer interaction.
- Demonstrated strong route optimization and time management skills, reducing average delivery times by up to 15%
- Adapted quickly to changing conditions, applying real-time problem-solving to ensure timely service during high-pressure periods.
- Was ranked 1 out of 20 for delivery driver efficiency, by exceeding delivery time targets by 10%.

McDonalds - Crew member

Sept 2019 – Jan 2023

- Provided excellent customer service in a fast-paced environment, ensuring smooth operations.
- Managed stock, handled cash transactions, and maintained accuracy under pressure.
- Achieved **4-Star Certification**, demonstrating expertise in food preparation, hygiene, and safety.
- Worked efficiently as part of a team, developing strong communication and problem-solving skills.
- Consistently received positive customer feedback for service quality and efficiency.

Hydrasun – Work placement

Mar 2015

- Manufacturing & Assembly:** Cut pipes to specification, crimped fittings, and worked with various pipeline components, gaining hands-on experience in precision manufacturing.
- Testing & Quality Control:** Conducted pressure and integrity tests on pipes, ensuring compliance with industry standards. Observed Kevlar coating processes for pipeline reinforcement.
- Cross-Department Experience:** Rotated through manufacturing, sales, marketing, and logistics, developing a well-rounded understanding of engineering operations in a fast-paced industrial setting.
- Supply Chain & Order Management:** Organized customer orders through the internal system, ensuring accurate processing and delivery.
- Machinery & Production Insights:** Gained exposure to large-scale industrial machinery and automation processes used in pipeline manufacturing.