# **Lewis Fowler**

UK - 21/03/2000

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### **EXPERIENCE**

**Boyd** January 2025 – Present

As a Design Engineer, I work with clients across a range of industries including automotive and space, to design bespoke cold plate solutions for thermal management. My role involves managing projects from concept to delivery, including 3D CAD design, communication with client engineering teams, and collaboration with internal manufacturing departments to ensure design feasibility. This experience has strengthened my cross-disciplinary communication, precision design, and ability to deliver technical solutions under diverse client requirements.

# ROSEN (UK) September 2023 - December 2024

I authored technical reports for clients based in all regions of the world. This process involves working to relevant codes, standards, and best practices. I conduct analysis and interpretation of In-Line Inspection Data following pipeline inspection. In my projects I will perform first level checks of calculations and liaise with engineers from other groups and engineering disciplines within ROSEN on technical matters.

# Rolls-Royce External Placement May 2022 – January 2023

My final year project at the University of Glasgow was an external placement with Rolls-Royce. Throughout the project I developed a design for a novel high performance heat exchanger that has the potential to improve the efficiency of aircraft's systems. My experience in the workplace environment has resulted in me acquiring many highly valuable skills. Specifically, my managerial and peer-to-peer communication has improved greatly along with my presentation skills, which were enhanced through triweekly presentations. I have also gained knowledge of safety in the workplace, e.g., completing a risk assessment for my project to understand how to mitigate any risks and how to react to any potential problems such as my laptop breaking down.

# Formula Student September 2021 - present

As part of the Formula Student society at the University of Glasgow we are developing an electric vehicle and a driverless car. This year I am on the Aerodynamics team where I am using CFD. The project has developed my team working skills and it is rewarding to see the result of your work in the final car. The previous year I was part of the Motion and Control sub-team which investigated implementing a PID controller and Extended Kalman Filter. This project has been an amazing experience where I have

#### **SKILLS**

Software skills: CFD and meshing (Fluent, StarCCM+ & Boxer), CAD (Solidworks, Fusion 360), programming (MATLAB, C++, Arduino, ROS 2) & Microsoft Office.

Fabrication skills: I have learnt how to weld, solder and have woodworking skills through my interest of designing and building items. I love problem solving and feel through designing and building things this is a great way to develop that skill. I also have experience in 3D printing.

Communication skills:
Gained whilst taking part in the Y Factor competition as part of the School Youth
Enterprise Scotland
Programme. We created a business over a year and presented it to a board of judges and a group of people.
We came second out of 19 groups from Aberdeen and Aberdeenshire and won a prize of £250.

developed knowledge of robotics software such as ROS 2 and its control systems.

# Work Experience at Genesis Oil and Gas Consultants Ltd 2018

A week of work experience where I was introduced to a wide variety of people in all the different disciplines. I developed an understanding about what their job involved and what it's like working in their specific discipline. I was introduced to the pipe modeling tool, and also learned about the multidisciplinary setup and how information is shared between the groups effectively.

# Work Experience at Strathclyde Physics Department June 2017

I learnt how to use various pieces of equipment, carried out electrical safety tests and performed experiments. I also developed practical skills such as soldering and using Raspberry Pi to control electronics.

# **STEM in the Pipeline** August - November 2017

I took part in a TechFest inter school competition run to create a Field Development Plan for an oil field. I established an understanding of industry techniques by performing various tasks such as net to gross ratio calculations, planning a pipeline route, designing a separator, calculating the range of possible CO<sub>2</sub> emissions and considering safety, economic and environmental factors. We created a Gantt chart to organise our tasks and allowed us to monitor if we were on schedule each week.

# **EDUCATION**

University of Glasgow September 2018 – Present

Robert Gordon's College August 2012 – June 2018

Advanced Higher - AAA in Mathematics, Physics and Mathematics of Mechanics

Higher - A\* A\* A\* A\* in Mathematics, English, Physics, Chemistry and Biology

National 5 - AAAAAAA in Mathematics, English, Physics, Chemistry, Biology, Latin, Business Management and Economics.

#### **ACHIEVEMENTS**

Engineering Excellence List 2019 - 2022

Silver CREST Award November 2017

MER UK Prize for STEM in the Pipeline November 2017

Robert Gordon's College Year Group Awards - 2015 Chemistry First Place, 2016 Abercrombie Progression Award and 2017 Physics Second Place

Bronze Duke of Edinburgh Award October 2015 - 3 months as volunteer tennis coach, 6 months of gymnastics for physical section and 3 months of learning to play guitar for skills section.

Silver Duke of Edinburgh Award October 2016 - 6 months as volunteer tennis coach, 6 months of squash for physical section and 3 months of learning to play guitar for skills section.