# **PROFESSIONAL SUMMARY**

Award winning final-year Mechanical Engineering student with a predicted 1<sup>st</sup>, and professional experience at LEADA Engineering. Skilled in SolidWorks, Inventor, AutoCAD and ANSYS with experience in CAD assemblies (200+ parts). Proven team working and leadership across Formula Student, Biomimetic Propulsion projects and within industry.

#### **EDUCATION**

University of Nottingham

Nottingham, UK

MEng Mechanical Engineering - (Predicted) 1st

**Expected May 2026** 

A levels: Maths (A), Physics (B), Business (B) GCSEs: 12 GCSEs grade 8-6, English (6), Maths (8)

July 2022

#### PROFESSIONAL WORK EXPERIENCE

## Mechanical Design Engineer | LEADA Engineering

September 2025 - Present

- Designed innovative dual-contained chemical dosing system (220+ part assembly), delivering P&ID, BOM, and costing documents to support manufacturing.
- Performed working volume calculations ensuring accurate tank sizing, improving system reliability and efficiency.
- Communicated with manufacturing team to alter design of chemical instrument boards, and produced detailed manufacturing drawings and BOMs/Parts Lists, enabling accurate production and reducing design rework.
- Presented final design of dual dosing system to Operations Director, which led to design being presented to major companies in UK water industry.

# Mechanical Design Intern | LEADA Engineering

**June 2025 – September 2025** 

- Developed P&ID drawings for chemical dosing system using AutoCAD.
- Created as built CAD Assembly of a chemical dosing trailer (200+ parts, multiple Subassemblies) using Inventor.
- Produced rendering and animations for marketing purposes using Inventor Studio and Navisworks.
- Implemented a new file storage solution to improve efficiency and workflow using a detailed report.
- Initiated early design for an 20ft containerized dual chemical dosing system with weekly design reviews to ensure ease of use, manufacture and maintenance.

#### PROJECT EXPERIENCE

## Design Lead and Presentation Lead | Biomimetic Propulsion System Project

**September 2024 – June 2025** 

- Awarded 'Best Project of the Year' in Mechanical Engineering for delivering the most successful manufactured outcome in the project's multi-year history.
- Led the design, drawing, and manufacture of a spring-driven tail section using lathe, milling, and 3D printing achieving 12 N of thrust during underwater testing.
- Contributed to the design of components within the whole of the assembly, ensuring integration with the system.
- Coordinated with suppliers and team members to ensure correct parts were ordered and within time constraints.
- Produced Manufacturing Drawings for all major body and tail parts within assembly.

## Suspension Engineer – Design and FEA Lead | University Formula Student

September 2024 – February 2025

- Led gearbox housing design using SolidWorks and performed FEA in ANSYS to validate structural integrity and material choice.
- Coordinated weekly meetings with cross-functional sub-teams to align design requirements and progress.

#### **Team Lead** | Centrifugal Clutch Project

September 2023 – January 2024

- Led the design and manufacture of a centrifugal clutch rated at 5000 RPM.
- Organized weekly meetings to track progress and delegate tasks.

## **SKILLS**

- Technical: SolidWorks, AutoCAD, MATLAB, ANSYS (Fluent, Mechanical), ABAQUS, Inventor (Design and Studio), Navisworks, Project, Excel and ShotCut
- Leadership: Led Centrifugal Clutch Project and Led Volleyball Club as Captain to the Nationals tournament.
- *Teamwork:* Collaborated with multidisciplinary teams within formula student, group projects and within Internship.

## **WORK EXPERIENCE**

Waiter & Back of House - Logistics & Food preparation | Hog & Apple Wedding Catering

June 2019 - July 2023

Supervised & trained new members of staff, while managing tasks in fast paced environment for 30-750+ guests

#### **EXTRACURRICULAR**

- York Volleyball Club Captain: U19's Captain leading the team to nationals, whilst starting for the Men's National Volleyball League 2 team.
- UoN Volleyball: Attended training 3x a week and weekly matches. Represented team in a tournament in Portugal.