



EDUCATION

University of Cambridge

MPhil Master's in Industrial Systems, Manufacture and Management

Oct. 2023 – Aug. 2024

- Master's thesis: "*Design & development of "artery-in-a-box" medical testing device to research innovative drug delivery methods for hard-to-treat pancreatic cancers*".
- Actively working with world-leading academic to develop in-depth skills in Manufacturing Processes, Operations & Supply Chain Management, Data and Modelling, Lean, New Business Development, Research Methods.
- Visited and learned from 30+ companies across various industries, including a 2-week study tour in North America.

University College London

BEng Bachelor in Mechanical Engineering with Business Finance and Year In Industry

Sep. 2019 – Jul. 2023

- Bachelor thesis (81%): "*Design and development of ground effect aerodynamics for the 2023 UCL Formula Student*".
- Developed in-depth knowledge and skills in design engineering, motion dynamics, material properties, subsonic fluid mechanics & aerodynamics, project management and strategic performance management.

Institution Sainte-Marie High School, Belfort, France

Sep. 2012 – Jul. 2018

- Achieved "*mention très bien*" (very high honours) in French Baccalaureate, incl. 19/20 in adv. physics & 18/20 in mathematics.

PROFESSIONAL ENGINEERING EXPERIENCE

Formula 1 Mechanical Engineer (Placement student), Mercedes-AMG HPP, Brixworth, UK

Sep. 2021 – Sep. 2022

- **Mechanical engineering:** Developed, released and proved-out parts for 2022, 2023 & 2026 Mercedes F1 power-units using CATIA-V5 and HPP Design Standard in Structural and Bottom-end engineering teams. Solved mechanical engineering faults by implementing immediate, short-term, and long-term containments.
- **Process engineering:** Solved process faults by working with IT & Methods team by modifying Design Process and SOPs. Nominated by Methods team to maintain company-wide engineering log system. Developed mass tracking for R&D PU's for Concept Team.
- **Program management:** Organised and led post-race meetings with team leaders to implement immediate actions for solving faults raised during race weekend. Communicated with trackside for urgent requests and hardware tracking. Analysed real-world data using ATLAS 9.0 from Dyno and Track to carry out decisions.

Engineering Consultant, Institute for Manufacturing, University of Cambridge

Oct. 2023 – Mar. 2024

- As part of master's studies in Cambridge, solved real-world engineering problems with partner companies on consulting basis. Developed strong client management and collaboration skills, and presented results to board of directors.
- Consulted **Little Car Company** (Bicester) on "*new production plans and layout for upcoming vehicles*" (2 weeks FT).
- Consulted **CW Fletcher & Sons** (Sheffield) on "*streamlining internal manufacturing planning processes*" (2 weeks FT).
- Consulted **eScent Tech.** (Cambridge) on "*market assessment and opportunities for an innovative wearable product*" (6 weeks PT).
- Consulted **Sika UK** (Preston) on "*cycle time optimisation for high volume products*" (2 weeks FT).

Aerodynamics Design Engineer, UCL Racing Formula Student, UCL, London, UK

Sep. 2022 – Jul. 2023

- **Engineering design (CAD):** Designed conceptual and detailed designs in using Surface Modelling and evolved iteratively based on simulated performance. Final design allowed for a lap time reduction of 1.06 seconds.
- **Aerodynamic simulation (CFD) & wind tunnel testing:** ran 3D RANS simulations to evaluate aerodynamic performance. Validated performance by designing and manufacturing a wind tunnel testing rig and ran tests on a 3D-printed 7.5% scale model.
- **Critical thinking:** Established a unique design process methodology and design-tracker to support decision making.

Product Validation Engineer, UCL Team Ventura Medical Projects, UCL, London, UK

Jun. 2021 – Aug. 2021

- **CPAP & Dental Equipment Device projects:** validated performance of two medical devices aimed for treating respiratory diseases & decreasing Covid-19 transmission using CFD simulations. Supervised by Prof. Tim Baker MBE & Dr. Rebecca Shipley OBE.

Product Designer (National champions), IMechE Design Challenge 2021, London, UK

Sep. 2021

- Won 1st prize in "2021 IMechE Design Challenge" in a team of 4 students by designing, manufacturing, and testing a highly competitive vehicle in 3 weeks. Delivered a design presentation, bill of materials, detailed CAD model and a design poster.

Team Lead, UCL Racing Clubs, UCL, London, UK

Sep. 2020 – Jun. 2021

- Co-founded & lead a team of 50 students to provide Formula Student engineers with skills in 1D calculations, CAD designing and aerodynamic optimisation skills for F1inSchools vehicles.

INTERESTS & HOBBIES

- **Languages:** English (fluent), French (fluent), German (advanced), Slovak (native)
- **Achievements:** won 1st national prize in 2021 IMechE Design Challenge; won 1st prize in Concours d'éloquence (speech contest) in German, organized by Lion's Club in 2017 on: "You can't get very far until you start doing something for someone else"
- **Interests-sports:** Senior rower at Lucy Cavendish Boat Rowing Club