

# William Temple

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## PROFESSIONAL SUMMARY

Driven and passionate Mechanical/Aerospace engineer specialising in CAD design, data analysis and engineering design tools. I have 1.5 years of industry experience across Airbus DS and Subsea7, developing C# (.NET Framework, WPF/XAML frontend) and Python-based engineering applications from concept to deployment. Industry experience also includes complex CAD modelling in CATIA V5 and 3DX, and the development of a C#/Unity augmented reality tool to support engineering design and satellite assembly.

I also have multiple years of experience in F1-style vehicle projects, with current responsibility as Head of CAD Design for a scale 2026-spec Formula 1 wind-tunnel model within my final-year MEng programme.

## EDUCATION

### University of Southampton

[Sep 2021 - Present]

MEng Mechanical/Aerospace Engineering with Placement (**2:1 Average**)

- **Key Optional Modules:** Race Car Aerodynamics, Applications of CFD, Wing Aerodynamics, Design Search and Optimisation
- **Year 4 Group Project:** Formula 1 Car Model Test and Aerodynamic Development (30% Scale)
- **Year 3 Dissertation:** Design and Optimisation of a Superconducting Stator for use in Electric Aircraft

### Sutton Grammar School

[Sep 2014 - Jun 2021]

**A levels:** Computer Science (A\*) | Maths (A) | Physics (A) | Chemistry (B)

**GCSEs:** (8x 9s, 2x 8s, 2x 7s) including 9s in Maths, Physics, Computer Science, Electronics & DT.

## PROFESSIONAL EXPERIENCE

### **Airbus Defence & Space - CAD Process Engineering Intern (13 Month Placement) [Jul 2024 - Aug 2025]**

- Use of both 3DX and CATIA v5's modelling and surfacing tools to produce many complex spacecraft components and other extensive assemblies. Required Blender to finalise surface finishes for Airbus' own software.
- Produced an augmented reality model viewer using Unity/C# that could display 1:1 scale hologram models of spacecraft and components from 3DX in full detail, after decoding QR codes. Complete with custom-built HUD, settings and scripts in Unity to convert models from 3DX file formats. Initially developed for technicians to visualise component locations during satellite construction.
- Developed my AR model viewer to additionally support scale models of exhibits from Airbus' VR museums. Produced many of these models in 3DX and textured them in Blender/Unity.
- Used C# to produce an application to group/organise/manage and launch Airbus' archive of VR simulations in a user-friendly GUI. Utilised asynchronous codeXAML bindings and was deployed internationally.
- Produced in-depth documentation for all programs I produced on Confluence, containing user guides, change logs and video tutorials.
- Performed presentations and held VR experiences for multiple VIPs, inc. representatives of the crown and British government, news reporters, Lords and senior Airbus management.

### **Subsea7 - Engineering Intern**

[Jun 2023 - Sep 2023]

- Developed a Python engineering tool with an easy-to-use yet feature-rich GUI to automatically generate engineering report appendices from ANSYS output data, enabling flexible data selection, advanced graph customisation, and controlled report layout.
- Trained on buckling and fatigue mitigation strategies, pipe parameters, and industry engineering standards.
- Performed FEA of complex pipe routes across the ocean floor using company tools (ANSYS-based).

## CURRENT PROJECTS

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### Formula 1 Car Model Test and Aerodynamic Development for 2026 Regulations [Sep 2025 - Present]

- Head of CAD Design for the project, with an additional focus on lap simulation and data analysis.
- Adapting a 30% scale F1 car model from 2023 regulations to the new 2026 regulations. Designing and iteratively improving the aero package with CAD and CFD, before a final wind tunnel test.
- Performed wheels-off wind tunnel test on old model, including ride-height sweeps/wake analyses.
- Analysed the wind-tunnel data using Python programs (Plotly graphing with basic Tkinter UI).
- Completed baseline CAD design in SOLIDWORKS using advanced surfacing tools.

## MOST RELEVANT EXTRACURRICULAR ACTIVITIES/COMPETITIONS

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### Southampton University Formula Student Team (Suspension Department) [Sep 2024 - Dec 2024]

- ANSYS FEA and SOLIDWORKS of suspension components, before being unable to attend due to work placement timings.

### Southampton University Formula Student Team (Tractive Systems Department) [Sep 2022 - Jun 2023]

- Researched and developed the cooling loop for the electric motor, produced Python programs to calculate pressure drop/tube diameters and produced CAD components in SOLIDWORKS.

### Eurobot [Jan - May 2023]

- International robotics competition involving the design and construction of autonomous robots to complete specific tasks on a game board against opposing teams.
- Utilised SOLIDWORKS to iteratively design a robot and an electronic counting basket before producing drawings to laser cut, construct and test iterations. Used C++ code for the Arduinos and built electronic circuits to connect components. Sponsored by Boeing to compete abroad in the international final in France following a win in the national competition.

### IMechE Design Challenge 2022 [Oct 2021 - Mar 2022]

- Competition against other universities involving the designing and building of a motorised line launcher that was capable of launching a squash ball over a range of specified distances chosen on competition day.
- Produced SOLIDWORKS CAD model, drawings and Python graphing tools for simulating projectiles.

### Greenpower Car Challenge (Head of Propulsion and Head of Finance) [Sep 2019 - Jun 2021]

- After-school club involving the design and construction of a single-seat racing car for competition.
- Designed a chain-drive system for the new car, aided in construction, and made BOMs for all parts.
- Tested multiple iterations of the previous and new car, adjusting parameters to evaluate performance impacts.

## MOST RELEVANT CURRICULAR ACTIVITIES

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### Design and Optimisation of a Superconducting Stator for use in Electric Aircraft [Sep 2023 - Jun 2024]

- Researched existing designs to determine suitable goals for power, weight, and efficiency.
- Use of COMSOL to iteratively design, model and optimise a superconducting slotless 0.5MW stator for an electric aircraft motor. Used COMSOL analysis tools to investigate KPIs and used Python data analysis and graphing libraries (Plotly/Pandas) to display this information clearly.
- Optimised my design to achieve the lowest weight that still met the desired performance goals.

## TECHNICAL SKILLS SUMMARY

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**CAD/Analysis:** 3DXperience, CATIA v5, SOLIDWORKS, COMSOL, ANSYS FEA/FLUENT, STAR-CCM+ CFD

**Coding:** C#, C++, .NET Framework/WPF/XAML, Python, Java, SQL, MATLAB, App Design, Data Analysis

**Other:** Blender, Unity, VR/AR specialist, MS Office, Google Suite, Confluence, Jira, GD&T, 3D Printing

## ADDITIONAL

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Amateur weightlifter (4 years), short-distance sprinter (2 years) at University athletics society and re-learning piano. Ex-competitive swimmer who now swims recreationally. Strong focus on health, nutrition and cooking.