

# Max Matthew

BEng Hons Automotive & Motorsport Engineering | Full Clean UK Driving Licence

## Contact Information

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## Technical Skills

**Vehicle Dynamics Simulation**  
Adams Car, MATLAB, Excel, SolidWorks Motion.

**Data Analysis**  
MATLAB, Python, Excel, Vector Suite (CANalyzer, CANape).

**Computer Aided Design**  
SolidWorks, AutoCAD, Siemens NX.

**CFD / FEA**  
Ansys Workbench, SolidWorks Motion.

**Engineering Documentation**  
Experience with test specifications and technical reports, BSI and ISO engineering drawings.

**Control Systems**  
CAN & LIN datalogging, breakout harness fitment.

**Microsoft Office Suite**  
Word, PowerPoint, Excel (inc. Power Query), Project, Access.

**Driver Training**  
Achieved LHD & RHD D2 driver training at previous role to aid in vehicle dynamics assessment.

**Testing and Instrumentation**  
Use of vehicle data loggers, strain gauges, thermocouples in research and development.

**Standards**  
Familiar with GD&T, DFMEA, V-model development, and ISO and BSI standards.

## Professional Summary

Driven automotive engineering undergraduate with a strong foundation in data analysis, design, vehicle test and project management. Highly self-motivated and proactive, with experience across academic, motorsport and industrial contexts. Passionate about motorsport, vehicle systems, dynamics, performance and innovation. Possesses fantastic communication skills with leadership experience. Results-focussed, determined, practical minded team player, with hands-on technical skills, who can work cross-functionally, manage data-driven projects and contribute meaningfully to engineering innovation. Seeking opportunities in performance engineering or vehicle dynamics at a graduate or entry level.

## Relevant Experience

### Team Principal & Head of Vehicle Dynamics

**Team HARE CV Formula Student** | Aug 2025 – Present

- Designing a double wishbone suspension system for the 2026 vehicle using ADAMS Car, Excel and SolidWorks to simulate suspension kinematics and validate geometry.
- Ensuring suspension system meets competition performance and manufacturability targets.
- Conducting FEA and modal analysis with Ansys & Solidworks to optimise performance under track loads.

### Customer Oriented Data Engineering and Test Management

**Nissan Technical Centre Europe** | Aug 2024 – Aug 2025

- Led customer concern investigation, translating qualitative vehicle performance concerns into actionable, quantitative data-driven reports.
- Project management of testing on 100+ vehicles across Europe, collaborating cross-functionally.
- Developed MATLAB tools for data wrangling, optimising analysis by 90%+.
- Delivered Excel dashboards to visualise testing and issue tracking to identify areas of cost and time saving.
- Led alignment meetings with European design and test teams and Japanese research and development groups.

### Mechanical Design Engineer

**Team HARE Formula Student** | Feb 2023 – Jul 2024

- Designed DFMA-compliant mounting solutions for TSAC, bodywork and aero packages to DFMEA specification.
- Produced a series of detailed assembly drawings enabling manufacture of in-hub gearboxes of the HARE24 4WD EV vehicle.

### Team Principal & Performance Engineer

**HGP Racing Greenpower F24+** | Feb 2023 – Aug 2024

- Led the Huddersfield University's Greenpower F24+ motorsport team, managed technical direction.
- Designed low-drag aero and efficient drivetrains; implemented MATLAB simulations.
- Created pre-event simulation tools and presented data-driven feedback to drivers, improving lap time predictions via MATLAB strategy script by 40%.

### CAD Design Technician

**Consolux MEP** | Feb 2022 – Jul 2022

- Used AutoCAD to deliver M&E system drawings to clients on large projects on strict deadlines.
- Resolved conflicts with clients by delivering design solutions.

## Core Competencies

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### Problem Solving

Skilled in applying creative lateral thinking to performance projects.

### Detail-oriented

Proven track record of ensuring accuracy in engineering documentation and data analysis.

### Teamwork

Experienced of collaboration within industry projects across multiple functions.

### Leadership

Led academic and industrial projects, delegating tasks and managing progress efficiently.

### Communication

Strong written and verbal skills. Confident in presenting and reporting my own work

### Adaptability

Efficient in both structured environments and fast-paced, high-performance situations.

### Time Management

Proven ability to manage tasks, complete deadlines and deliver high quality results.

### Proactive

Takes initiative to anticipate challenges and implement continuous improvement.

## Achievements

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### Certified SOLIDWORKS Associate.

**Dassault Systèmes**  
May 2024

### 2<sup>nd</sup> Place, Automobile Engineering Competition.

**IMechE ADYC**  
July 2023

### 3<sup>rd</sup> place, International Final.

**Greenpower F24+ Championship**  
June 2023

## Personal Projects

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### Excel double-wishbone suspension geometry calculator & visualiser

**Personal Project** | Jan 2025 – Present

- Developed an Excel-based suspension geometry calculator and visualiser, computing key vehicle dynamics parameters (instant centres, roll centre, KPI, scrub radius etc.) from user inputted hardpoints.
- Models tyre behaviour at a given pressure and temperature to calculate ride height, tyre deflection and contact patch area.
- Graphically models camber, track and wheelbase change, roll centre migrations and dive/squat to show real-time parameter changes.
- Enables rapid evolution of design by providing interactive front and side-view visualisations of suspension layout.

### Racing data visualiser & lap time comparison tool in MATLAB

**Personal Project** | Jun 2025 – Present

- Developed a tool in MATLAB which collates data gathered from Formula Student vehicle tests and visualises engine and dynamic data for vehicle development.
- Facilitates identification of driver and vehicle performance trends through visual analysis.

## Education

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### BEng (Hons) Automotive & Motorsport Engineering

**University of Huddersfield** | 2022–2026

- Strong academic performance (Year 1: 2:1, Year 2: 1st, Year 3 Placement: 100%, Final Year Predicted: 1st).
- Completed 12-month industrial placement at Nissan Technical Centre Europe, supporting customer-oriented data engineering and test plan management.
- Leads vehicle dynamics development for Formula Student team, delivering simulation and correlation in Adams Car and IPG CarMaker and managing driver feedback via racing simulators.
- Directs Motorsport Society as President, organising events, managing resources and supporting driver development.
- Final-year project: Design and testing of a roll/heave decoupled double wishbone suspension system.

### A-Levels

**Cardinal Newman 6th Form College** | 2019–2021

- Physics, Chemistry, Mathematics.

### GCSEs

**Birkdale High School** | 2014–2019

- 10 GCSEs, grade 9-7, including Maths (9) and English Language (9).

## Hobbies & Interests

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Motorsport competitor (BUKC); founder and president of karting and motorsport clubs at Huddersfield University and Nissan Technical Centre Europe. Passionate about vehicle dynamics, driver development, retro tech restoration, bouldering and choral singing (national youth level).

## References

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Available on request.