

# James Paver

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## PERSONAL STATEMENT

A motivated and innovative engineer with Formula One experience who combines high academic achievement with practical and personal skills. A good team player who enjoys working collaboratively to achieve the best solution. Likes to take the initiative and develop new insights or ways of working, with proven success at taking a leading role in company strategy. Extensive experience in vehicle dynamics, machine learning and coding - primarily in MATLAB and C++.

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## WORK EXPERIENCE

Apr 2018 • **Specialist, Simulation Development Engineer**  
- Present **McLaren Racing Limited**

Working for the McLaren Formula One Team in Simulation Development - developing and maintaining the physics models of the car as well as data analysis software and tools.

- Extensive use of MATLAB and C++ and increasing use of Python.
- Extensive use of machine learning.
- Responsible for aerodynamic modelling and aero performance analysis.
- Responsible for inference tools and on-track, real-time simulation data.
- Lead the application of simulation in new areas of the business, presenting to and working collaboratively with, the Technical Director to define company strategy.
- Strong collaborative links including joint projects with the Software, Control Systems and Aerodynamics departments.

Jan 2015 • **Aero Performance Engineer**  
- Apr 2018 **McLaren Racing Limited**

Working in the Aero Performance department of the McLaren Formula One Team combining areas of aero development, vehicle dynamics and race engineering.

- Analysis of track, wind tunnel and CFD data to improve car performance.
- Representative of the team as the trackside aerodynamicist at races and tests. Working with the race team and drivers to prepare the car and extract maximum performance on a race weekend.
- Heavily involved in programming, modelling and simulation development using MATLAB, Simulink and C++; including leading a large-scale redevelopment of aerodynamic modelling.

July 2013 • **Junior Aerodynamicist**  
- Dec 2014 **Aston Martin Lagonda**

Working in the Aston Martin Aerodynamics team using OpenFOAM to carry out external and internal (HVAC) CFD analysis as well as thermal management – Siemens NX CAD software used to create geometry.

- Involved in full scale wind tunnel testing
- Carried out powertrain track testing.

June 2012 • **Student Placement - Aerodynamics**  
- Sep 2012 **McLaren Racing Limited**

Three month student placement working in the wind tunnel with the McLaren Formula 1 team – using programming tools such as MATLAB to increase operational efficiency and carry out data analysis.

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## EDUCATION HISTORY

- Present • **Web Development Bootcamp**  
**Udemy & London App Brewery**  
Online course in web development, covering front-end and back-end development.
- 2018 • **Machine Learning course**  
**Stanford Online**  
Online course covering introductory machine learning modules, especially neural network implementation.
- 2009 • **Master's Degree in Aeronautics & Astronautics, 1<sup>st</sup> Class Honours**  
- 2013 **University of Southampton**  
Principle components of the course include advanced computer programming, engineering analysis using CAD and CFD software and group design projects, specialising in aerodynamics.  
Individual project on the drag characteristics of sounding balloons.  
Group design project on the design and testing of a one third scale hill-climb car wind tunnel model.  
Awarded an academic scholarship for results every year.
- 2002 • **GCSEs & A Levels**  
- 2009 **Aylesbury Grammar School**  
5 A Levels achieving 4 A in Biology, Physics, Chemistry and Mathematics and 1 B in Further Mathematics.  
11 GCSEs with 6 A\*, 3 A, 1 B and 1 C.  
1 Free Standing Maths Qualification (FSMQ) achieving top level grade (A).  
Bronze medal in National Physics Olympiad.  
Duke of Edinburgh Bronze and Silver awards.  
Senior Prefect and Deputy Head of House.
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## PERSONAL INTERESTS

Qualified PADI Scuba diver with several qualifications:

- PADI Open Water Diver (2003)
- PADI Advanced Open Water & Enriched Air Diver (2006)
- PADI Rescue Diver & Emergency First Responder (2008)

A keen mountain biker who enjoys many other active pastimes including climbing, hiking/mountaineering, skiing and flying with vintage aircraft – have undergone flight and skydive training.

Play various sports, especially squash and badminton.

Have learned to play the piano and am learning to play guitar.

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## REFERENCES

Available on request.