

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 understanding the requirements of the team and working collaboratively to achieve the best solution. Likes to take the initiative and develop new insights or ways of working. Extensive experience in vehicle dynamics, machine learning and coding - primarily in MATLAB and C++.

KEY ACHIEVEMENTS

- **Industry work experience at McLaren Formula One Team** in Aero Performance and Simulation Development. Using MATLAB, C++ and Python to develop simulations and other tools to optimise car performance. Supporting trackside operations at races and tests.
 - **Industry work experience at Aston Martin Lagonda** in Aerodynamics using OpenFOAM to carry out full car external and internal CFD analysis.
 - **1st Class Master's Degree in Aeronautics and Astronautics / Aerodynamics - University of Southampton.** Course involving programming and simulation as well as practical wind tunnel testing of scale models.
 - **5 A Levels, 11 GCSEs & 1 Free Standing Maths Qualification** achieving top level grades.
 - **Numerous awards** including winning four £1000 awards from the University of Southampton for exceptional results and Bronze certificate in the National Physics Olympiad.
 - Online courses in machine learning and web development.
 - Several SCUBA diving qualifications.
 - Duke of Edinburgh Bronze and Silver Awards.
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WORK EXPERIENCE

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|-------------------------|---|
| Apr 2018
- Present | <ul style="list-style-type: none">• Specialist, Simulation Development Engineer
McLaren Racing Limited <p>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. Responsible for aerodynamic modelling and aero performance analysis as well as inference tools and simulation data in live telemetry. Developing new technologies in live data simulation and wind tunnel development performance analysis.</p> <ul style="list-style-type: none">◦ Extensive use of MATLAB and C++ and increasing use of Python.◦ Extensive use of machine learning. |
| Jan 2015
- Apr 2018 | <ul style="list-style-type: none">• Aero Performance Engineer
McLaren Racing Limited <p>Working in the Aero Performance department of the McLaren Formula One Team combining areas of aero development, vehicle dynamics and race engineering. Heavily involved in programming, modelling and simulation development using MATLAB, Simulink and C++. Representative of the team as the trackside aerodynamicist at races and tests.</p> |
| July 2013
- Dec 2014 | <ul style="list-style-type: none">• Junior Aerodynamicist
Aston Martin Lagonda <p>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 as well as powertrain track testing.</p> |
| June 2012
- Sep 2012 | <ul style="list-style-type: none">• Student Placement - Aerodynamics
McLaren Racing Limited <p>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.</p> |

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, 1st 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.

Course completed June 2013 - 1st class honours.

2002 • **GCSEs & A Levels**
- 2009 **Aylesbury Grammar School**

5 A Levels achieving 4 top level grades (A) in Biology, Physics, Chemistry and Mathematics and 1 second level grade (B) in Further Mathematics.

11 GCSEs with 6 top level grades (A*), 3 second level grades (A), 1 third level grade (B) and 1 fourth level grade (C).

1 Free Standing Maths Qualification 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.

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.

REFERENCES

Available on request.