

## Jordan Cormack

Bristol, UK

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### EDUCATION

#### Bristol Robotics Laboratory

*PhD, Engineering (Robotics) - funded by HP Inc. UK Ltd., June 2018 - Present*

#### University of the West of England, Bristol

*MEng Aerospace Engineering, September 2013 - June 2018*

Distinction

### WORK EXPERIENCE

#### UAV Technical Specialist

University of the West of England

September 2019 - November 2019

Bristol

Conceptualisation, design, development, manufacture and testing of novel UAVs for commercial and defence projects. Focusing on mechatronic design and 3D printing, including the selection and sourcing of components, and their integration into flight tested systems.

#### Demonstrator/Instructor

University of the West of England

September 2019 - November 2019

Bristol

Leading tutorials for undergraduate modules, both on campus and virtually during COVID19. Content ranging from aerodynamics calculations to Solidworks CAD modelling and FEA/CFD simulations. I also led workshops on teaching students to use the wind tunnel, supervising them during practical sessions focusing on wing manufacture and testing.

#### Software & Systems Engineering Intern

L3 Marine Systems UK

June 2017 - September 2017

Bristol

Main duties involved writing, modifying and running a variety of software tests against functional design descriptions and specifications. I also created internal tools within Rational DOORS using DOORS eXtension Language (DXL), Microsoft Excel and SharePoint to improve consistency and reduce time when creating documentation.

#### Peer Assisted Learning (PAL) Intern

University of the West of England

September 2016 - March 2017

Bristol

This role was to provide coaching and mentoring to PAL Leaders running academic sessions for other students, with the aim of improving their professional and personal skills through a variety of methods. Included peer observation and feedback, along with group discussions and 1-to-1 sessions.

#### Engineering Intern

Flowserve Flow Control UK

August 2015 - August 2016

Haywards Heath, West Sussex

My duties were split between new product design/development and testing. I worked on projects throughout their life-cycle from creating initial concept designs according to specifications, carrying out stress analysis calculations and simulations, creating complex 3D models and 2D engineering drawings ready for manufacture, testing of prototype products in a range of pressure and temperature environments, and working on improving existing or legacy products through re-designing key components or making new material selections. I also worked on design documentation and test reports alongside the development process.

#### Peer Assisted Learning Leader

University of the West of England

October 2014 - March 2015

Bristol

Planning and running of academic sessions for other undergraduate students studying mechanical, aerospace and automotive engineering. I created session content based on current course material to test understanding of theory and practical skills. Sessions were tailored and adapted to a wide range of student skill levels and learning styles to meet individual needs.

### OTHER ROLES

#### Treasurer

The Students' Union at UWE

September 2019 - 2020

Bristol

Aero Society, Space Society, Photography Society.

**President**  
September 2017 - August 2018  
Photography Society.

The Students' Union at UWE  
Bristol

## PROJECTS

**SciRoc:** I lead the UWE Aero team to 2nd place in the 2019 SciRoc autonomous drone challenge. For this challenge, a drone was developed for delivering a small first aid kit autonomously, without GPS, whilst avoiding obstacles. My main roles were to lead the team, design and 3D print the complete air-frame, specify and test sensors and other components, test fly the system, and aid in the software development.

**MEng Individual Project:** My MEng Individual Project was focused on creating a drone body using corrugated cardboard. This involved an investigation into the mechanical properties of corrugated cardboard and the flight loads of a drone in flight. A suitable body was then designed, using the anisotropic properties of the corrugated cardboard to its advantage. In flight performance testing was carried out, and compared to an identical system with a commercial carbon fibre body.

**MEng Group Project:** My main role was to develop a balloon system for taking a model rocket to 30km altitude. This involved specifying the components and developing a MATLAB model to estimate the flight path and burst location of the balloon using weather data. My secondary role was to aid in the rocket hardware and software development, as well as operations during launches and data analysis.

## COMPUTER SKILLS

**Languages:** MATLAB, Python, some C++.  
**Applications:** Solidworks, Autodesk Inventor, ANSYS, MATLAB, Microsoft Office, Adobe Suite.  
**Operating Systems:** Windows, MacOS, Linux.

## AWARDS

**2nd Place - SciRoc Autonomous Drone Challenge**  
2019  
European Robotics League  
Milton Keynes  
Leader of the UWE team which placed 2nd in the 2019 SciRoc Autonomous Drone Challenge.

**1st Place - UKSEDS National Rocketry Championship**  
2018  
UKSEDS  
Bristol  
Part of the group which placed 1st in the 2017-2018 UKSEDS National Rocketry Championship.

**Best Group Project Prize**  
2018  
University of the West of England  
Bristol  
Awarded at the 2018 University Degree Show for a Master's level group project.

**UWE Bristol Futures Award**  
2018  
University of the West of England  
Bristol  
Completion and in-depth reflection of multiple extra-curricular activities such as Peer Assisted Learning sessions, coaching and mentoring, and various engineering industrial placements.

**Best Overall Engineering Project**  
2017  
University of the West of England  
Bristol  
Voted for by industry advisors at the 2017 Faculty of Environment and Technology Degree Show, for MEng Individual Project.

**Best Aeronautics Project Prize (IET)**  
2017  
University of the West of England  
Bristol  
Selected by IET for best aeronautics prize at 2017 University Degree Show, for MEng Individual Project.

**Dean's List of Academic Excellence**  
2014  
University of the West of England  
Bristol

