

William Easdown

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PERSONAL STATEMENT

A driven engineering graduate, now studying a space engineering MSc, with a strong interest in spacecraft operations and systems. Possesses strong leadership skills and works effectively in a team or individually. Relevant industry experience at RAL Space, Lockheed Martin and BAE Systems, working on spacecraft electronics, space systems engineering, space operations and avionics. Worked as the Chair of a small charity (UKSEDS) and still volunteers, and in academics has developed excellent communication skills and understanding of the space sector. Volunteering at UKSEDS has given strong space sector insight. Competing in UKSEDS' lunar rover competition enhanced space systems engineering knowledge.

KEY ACHIEVEMENTS

- Chair of UKSEDS, the national student space society, for 2018/19. Led the day-to-day running and growth of the charity and coordinated successful bids for several thousand pounds in outreach funding.
- Won head judge's prize for best written team report at ESA Alpbach Summer School 2018 while working as systems engineer. Summer School challenged teams of 15 European students to design asteroid sample return mission in 10 days.
- Founded and Chaired University of Bath's Space Society for its first two years. Led its team in the UKSEDS national Lunar Rover Competition, coming second in the second attempt.

EDUCATION

MSc Astronautics and Space Engineering: Cranfield University, Cranfield, UK (October 2019 – September 2020)

- **Modules:** Astrodynamics and Mission Analysis, Spacecraft Systems Engineering, Space Propulsion, Space Communications, Advanced Topics in Astrodynamics and Trajectory Design, Spacecraft Attitude Dynamics and Control
- **Group Design Project:** Design of a Constellation for Space Debris Surveillance and Space Traffic Management, leading the project in the systems engineer role
- **Individual Thesis:** TBD, to be selected in early 2020, likely to focus on spacecraft rendezvous and docking

BEng Integrated Mechanical and Electrical Engineering (2:2): University of Bath, UK (October 2015 – July 2019)

- **Modules:** Design; Integrated Engineering; Signals, Systems and Communications; Modelling Techniques
- **Group Design and Business Project:** using ultracapacitors as a buffer in a solar battery charging system
- **Final Year Project:** CubeSat Docking Simulator. Proof of concept robot to act as a HIL testbed for CubeSat docking software and hardware.

CAREER HISTORY

Lockheed Martin Space UK: Harwell, UK – Mission Operations Centre SPINtern (July 2019 – September 2019)

Lockheed Martin Space UK is part of large multi-national Lockheed Martin. It has been awarded grants by the UK Space Agency for development of facilities to support a UK satellite launch capability, under the UK Satellite Launch Program (UKSLP).

- Led development of Mission Operations Centre for UKSLP. This included working with colleagues locally, in US and Scotland.
- Developed outline design document for use within Lockheed Martin during MOC development.
- Contributed to MOC User Guide, to be used to train external staff in MOC systems and processes.
- Presented summary of work as poster at UK Space Conference.

UK Students for the Exploration and Development of Space (UKSEDS): Nationwide, UK – Chair (March 2018 – March 2019)

UKSEDS is a small charity, established in 1988, which brings together students nationwide with an interest in space. It runs a series of annual events and competitions, performs outreach to the public and advocates students.

- Led team that organised a conference for over 400 people, with a record amount of sponsorship from supporting companies and organisations.
- Attended meetings alongside leading figures from industry, academia and government, reminding them of the importance of suitably-trained students in the skills pipeline.
- Actively supported UKSEDS' development of its diversity and inclusion activities: brought the space sector to a wider and more diverse audience.
- Directed weekly meetings, ensuring that Executive Committee achieved our goals and stayed focussed on our wider strategy.
- Attended outreach events, inspiring primary and secondary school pupils.

RAL Space: Harwell, UK – Electronics Engineering Sandwich Student (July 2017 – July 2018)

RAL Space is a department of the publicly-funded Science and Technology Facilities Council. It specialises in design, integration and test of spacecraft instrumentation.

- Developed the PanCam Mars camera electronics design as R&D project.
- Led electronics development on new CubeSat Camera (CCAM) project.
- Actively contributed in requirements definition at meeting with team in Edinburgh.
- Designed electronics, based on PanCam design, but adjusted as necessary to suit different environment and spacecraft requirements.
- Presented CCAM work as paper and talk alongside colleague at iCubeSat conference in Paris in July 2018.

BAE Systems: Rochester, UK – Work experience (June 2014)

BAE Systems is a large company specialising in defence, with the Rochester site manufacturing and testing avionics.

- Carried out one week of work experience in calibration department.
- Calibrated test equipment for Eurofighter Typhoon and F-22 Raptor.
- Learned about quality control processes and information security in a defence environment.

SKILLS, INTERESTS & EXTRACURRICULAR ACTIVITIES

- **Languages:** Fluent English, Intermediate German, Beginner French
- **IT Skills:** Confident IT user. Experienced with Microsoft Word, Excel, PowerPoint, Autodesk Fusion 360. Knowledge of Python, MATLAB, C
- **Individual Interests:** Actively research space topics such as spacecraft operations. Develop Python simulations and study literature around topic. Keen photographer, particularly enjoying portraits.
- **Volunteering:** Chair of UKSEDS 2018/19, remained active member of staff. STEM Ambassador connected to East England Hub, hold an enhanced DBS certificate.
- **Memberships:** Student affiliate of Royal Aeronautical Society, affiliate member of Institution of Mechanical Engineers, Institution of Engineering and Technology student member, UKSEDS member and volunteer, Radio Society of Great Britain (RSGB) junior member, Medway Amateur Receiving and Transmitting Society (MARTS) member.
- **Professional/Technical training:** Full amateur radio license holder, training towards Light Aircraft Pilot's License (LAPL)
- **Other extracurricular activities:** Attended Air Cadets for five years at secondary school, attained rank of sergeant. Taught other cadets leadership skills, principles of flight and air navigation. Attended 2018 ESA Alpbach Summer School in Austria, working in a team with students from across Europe to design an asteroid sample return mission.