

# EDWARD G. LIMBREY

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French/English bilingual Aeronautical Engineer and private pilot with a wide skill set and knowledge both in complex BVLOS UAV systems and aviation procedures. Current experience in designing and developing mission critical software for UAV operations. Ambitious, creative and dedicated individual with a strong appetite for undertaking new challenges reflected in personal achievements in sport.

## ENGINEERING EXPERIENCE

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### 2017 – Present **TEKEVER, Southampton, UK**

Engineer | *January 2020 – Present*

- Engaged in the continuous development of the company's ground control software (GCS)
- Implementing mission critical features to support the operation of 150 kg BVLOS UAVs
- Scrum Master guiding a team of 8 developers using full Agile/Scrum framework
- Leading the integration of a new company VTOL UAV in the GCS; team leader assistant
- Liaising with stakeholders and promoting flight safety as a core value for the product
- Optimising the visualisation and UI performance of very large volumes of live data
- Designed and implemented a new central flight data panel in response to operator feedback
- Participated in large scale refactors of a legacy codebase including an upgrade to plotting
- Member of the CAA UAS Electronic Conspicuity and NATO Sense and Avoid working groups
- Received sponsorship to become a licenced private pilot (PPL)

Graduate Engineer | *October 2017 – December 2019*

- Planned, designed, and built a flight log data viewing and analysing software tool (C# MVVM)
- Delivered a detailed development plan in preparation of a new autopilot project
- Developed features for the existing autopilot (ArduPilot based, C++) on an ad hoc basis
- Organised and conducted field flight testing of said features using fixed and rotary UAVs
- Evaluated the flight dynamics for a 20 kg UAV and submitted an aileron redesign proposal
- Developed a prototype UAV autopilot in Python by extending the internship's FCS model
- Adapted the autopilot model to work as a flight simulation tool of the company's UAVs
- Attended Simulation & Modelling RAeS conferences and workshops

Intern | *Easter 2017 & Summer 2017*

- Created a 6 Degrees of Freedom linear flight model for small UAV using researched literature
- Attached and tested a Flight Control System (FCS) to the model using Matlab & Simulink
- Applied Control theory and Flight Mechanics knowledge and consolidated coding skills

**Professional membership:** Associate of the Royal Aeronautical Society (ARAEs) (2017 – present).  
Interim registration for engineering chartership with the Engineering Council.

## EDUCATION AND QUALIFICATIONS

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### 2012 – 2017 **University of Southampton, MEng Aeronautics & Astronautics (Hons) – Management Theme**

**Modules included:** Aircraft Control Design, Group Design Project, Design Search & Optimisation Structures & Materials, Aerodynamics, Flight Mechanics, Individual Project, Project Management

- Developed analytical skills and qualitative knowledge in three main engineering domains: aerodynamics and aircraft design optimisation, structural analysis and material properties, engineering management and industrial law
- Acquired strong working knowledge of CAD and CFD during the 3<sup>rd</sup> year Individual Project, *Modelling the airflow at the Clifton Suspension Bridge site*. A poster was presented at the 12<sup>th</sup> UK Wind Engineering conference

- Demonstrated leadership and project management skills in group projects of up to 10 members; extensive Excel-based optimisation work helped the *Design of a Microlight Aircraft* (3<sup>rd</sup> year) project be acknowledged as one of the best by visiting industry experts
- Final year Group Design Project aimed at designing, building, and flying an unconventional UAV incorporating a weight shifting control system with 6 other members. Successfully secured £1,000 of additional funding through an elevator-pitch competition.

Published conference paper: *Modelling the airflow at the Clifton Suspension Bridge site* (2016)

Additional courses: Engineering Workshop Practice Programme, National Flying Laboratory Course, Japanese Language Course, Business Innovation Programme, Boeing Business Case Competition.

**2009 – 2012 Lycée International Honoré de Balzac, Paris, France**  
Scientific International Option Baccalaureate (OIB) with second class honours

## ADDITIONAL WORK EXPERIENCE

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**2016 – 2017 Student Ambassador, University of Southampton, Southampton**

- Successfully took on the role of brand ambassador for a valued organisation
- Consolidated oral, presentation and time management skills

**2012 – 2015 French Tutor, Southampton**

- Teaching and giving support in French to a variety of students from different backgrounds
- Prepared and delivered classes tailored to individual needs

**Summer 2014 City Guide, Discover Walks, Paris**

- Addressed a wide audience in sharing valuable facts and views of the city landmarks
- Developed very strong communication and presentation skills

## INTERESTS AND ACTIVITIES

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**Aviation** Current Private pilot (PPL) with SEP rating and over 80 hours flying experience in light aircraft (C172 & DR400). Passionate about Aviation since childhood with current specific interests in UAVs and electric aviation. Owner and frequent flyer of a quadcopter drone. Passenger experience in helicopters, gliders, and paragliders. Winner of the Cranfield Aerospace Experience 2016 competition. Keeping informed with the latest aviation affairs through visiting international air shows such as Farnborough & Paris Airshow and regularly perusing the relevant press (Airliner World).

**Sustainability** Environmentally conscious individual. Supporter of various climate change action groups.

**Sailing** Completed over 350 hours of navigation on catamaran. Reached a teaching-instructor level of sailing.

**Cycling** Enthusiastic road cyclist. Participation in a 200 km sportive. Cycling commuter.

**Running** Marathon runner (Paris, 2019), Finisher of 6 Half-Marathons, 50+ Parkruns since 2017.

**Triathlon** Olympic and Sprint distance events. Top 10% finisher at London (2019) and Paris (2022).

**Music** Advanced piano player in classical and jazz. Amateur DJ.

**Travel** Visited over 30 countries with a special interest in cycle touring (bikepacking).

## ADDITIONAL SKILLS

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**Software** Microsoft Visual Studio, JIRA, Microsoft Office, SolidWorks, Star-CCM+

**Coding** C++, C# (WPF + MVVM, Winforms), Python, MATLAB & Simulink, Git

**Languages** English and French (Native), Spanish (Competent)

**Licences** Full Driver's licence, UK CAA PPL with Class 2 Medical, Motorboat licence

References available on request