

Aerodynamics Internship Opportunity 2023

Location:	Home based with some attendance at Southampton Science Park
Type:	Part-time, summer internship, up to 6 months
Working Pattern:	5-8 hours per week, working pattern flexible
Reports into:	Research & Development Programs Manager
Team:	Design
Salary:	Up to £11.30 per hour

About us

Windracers is a leading cargo drone operator. With notable achievements such as the first BVLOS (Beyond Visual Line of Sight) autonomous drone flight in the UK, we are pioneers in this field.

Holding more BVLOS permissions than any other operator, we have amassed extensive operational flying time. We have successfully completed challenging flight trials in remote locations such as the Scilly Isles, Orkney and Shetland Islands, including round trips of over 200 kilometres.

Our reputation extends beyond flights, we have worked with organizations including the MOD, British Antarctic Survey and Royal Mail, and received significant grant funding from the UK Government. These achievements solidify our position as a trusted partner in delivering autonomous drone solutions.

Why Windracers

Windracers is a fast-growing SME, pushing the way forward within the industry in Uncrewed Aircraft Systems (UAS). We are a diverse and rapidly growing team, who are all passionate about the vision and success of Windracers. Being a relatively new company in an innovative industry, things are constantly changing, no two days are the same.

By becoming part of the Windracers team you will be joining a highly driven design team working on cutting edge projects with the chance to work collaboratively alongside our build and manufacturing colleagues during our exciting period of growth.

Our Role

Windracers is seeking an enthusiastic undergraduate to join our aircraft design team to fulfil our Design teams internship opportunity for 2023. You will be performing aerodynamic analysis of our aircraft using a variety of methods, both empirical and computational.

The aim of this work; to inform future design decisions for drag and aerodynamic load optimisation. As part of this role, you will be expected to generate load cases, to be used by the structural analysis team to perform structural optimisation on our aircraft.

This is a rare and exciting opportunity, and hence we are seeking someone who can work independently and under general supervision.

Your Approach

- Keen attention to detail
- Methodical mind set
- Ability to work with clear guidance and structure without supervision
- Able to work collaboratively contributing to the wider team goals
- Excellent communication written and verbal skills
- Solutions orientated approach within a fluid environment
- A desire to innovate and push boundaries
- Flexible attitude to ensure delivery
- Passion and desire to learn and grow your knowledge through an inquisitive mindset seeking clarity and explanation as required

Responsibilities & Scope

- Evaluation and interpretation of aerodynamic loads data using empirical methods (ESDU, Raymer, Gundmudsson, Hoerner)
- Evaluation and interpretation of aerodynamic loads data using CFD methods (Xfoil/XFLR5, Star CCM+)
- Supporting design team with load generation
- Interface with designers to help optimise aerodynamic aspects of the aircraft

Skills & Experience

- Aircraft design
- Understanding Aerodynamic loads
- Proficient computational skills
- Good communication skills
- Fast learning and adaptable
- Good time management and punctuality
- Uncrewed aircraft industry knowledge (desirable)

What you can expect in return:

- Positive fun, inclusive working culture
- Chance to gain valuable skills, knowledge and experience
- Innovative working environment
- Company pension scheme enrolment (upon satisfying criteria)

Application Process

Please submit a covering letter detailing your suitability for this role and CV to: info@windracers.com with the subject 'Aerodynamics Internship'. Please note we are only accepting direct applications at this time, agency instructed CVs will not be responded to.

The interview process will consist of a TEAMS interview, followed by a face to face interview in our Southampton Science Park Offices. There is no closing date for this role, applicants will continue to be reviewed until we believe we have found the right person for this role.