

## **Commercial Spaceflight simulations – User Experience and Front End development**

**Code:** 21/38

**Company:** UK Launch Services Limited

**Location:** London / remote

### **Company Description:**

UKLSL was founded in 2017 to design and deliver sustainable spaceport operations for the commercial space age.

We are a launch operations service provider offering management, regulatory support, logistics support, range services and operations planning services for commercial small satellite launch. Together with our delivery partners we have extensive knowledge of small satellites and their launch requirements, and are facilitating commercially competitive launch operations from the UK. UKLSL also has wide ranging technical knowledge of launch vehicles, their technology and comprehensive knowledge of all potential UK launch sites (as well as the global market and competition).

### **Project Description:**

Simulation of commercial spaceflight as part of an assessment safety, risks and insurance requirements is a critical part of the modern space industry and is a requirement for licensing of all space activities in the UK. As the UK promotes itself to the world as one of the best places to 'do space business', we need to be able to attract start-up and established space businesses, helping them:

- understand whether their space activities can be licensed, and
- assess the financial implications of their operations.

UKLSL are developing a set of space mission tools to assess safety around a spaceport, and to model insurance requirements for spaceflight and return of objects from space. We aim to use these to support UK and international spaceports, launch service providers and providers of Earth return services. The backend implementation of flight and re-entry models and coupling this to financial loss models has been coded but needs to be coupled to a non-expert user-friendly user interface. The applicant will:

- Develop their understanding of current models and their limitations
- Support directors to develop preliminary market and competitor research for spaceflight
- simulation tools,
- Scope (explore), define and code a PoC user interface,
- Define a preliminary promotion and market test campaign.

### **Applicant Specification:**

Academic: The applicant should have an undergraduate or postgraduate 1st or 2:1 degree in computing science or a relevant engineering subject.

Applicant Specification: Applicants meeting the minimum requirements are encouraged to apply however the following additional attributes and knowledge can be used to support your application:

- A strong motivation to contribute to the growth of the UK space industry,
- A willingness to quickly adapt to changing business requirements and new challenges on a day to day basis is fundamental to our team,
- An interest in spaceport design and architecture,
- An interest in UX / UI and web-based applications
- Comfortable with coding, ideally in python (plotly Dash or similar) or node JS, or keen and able to learn quickly
- Hardworking & self-motivated. We are a startup so we like people who are willing to try to start solving problems after only a short briefing period and a limited set of information

### **Minimum Requirements:**

Demonstrable interest in coding and user interface development in a relevant modern language such as Python (Plotly Dash or similar), nodeJS or similar language suitable for web-based front end, through a previous placement, university or school project

### **Preferred Additional Requirements:**

User experience front end development and interfacing to a back end application.

### **Further details:**

8 weeks minimum fixed term contract to be agreed with successful candidate. Virtual Induction Event to be held on 21 June 2021. Project should ideally complete before the end of the summer. Salary is £350 per week gross.

### **Closing Date for Applications: 5pm Friday 4 June 2021**

Applications should be made through the online form on the Satellite Applications Catapult website before the closing date.

<https://sa.catapult.org.uk/work-with-us/space-placements-industry-spin/>

Please note that elements of the form left incomplete will be deemed to render the application ineligible. They will be checked for eligibility and forwarded to the employer.



Email applications made to the Satellite Applications Catapult, UK Space Agency, or host organisations will not be processed.