



## **Development of Environmental Indicators using Earth Observation Data**

**Code:** 19/20

**Company:** Pixalytics Ltd

**Location:** Plymouth, UK.

### **Company Description:**

Pixalytics Ltd is an independent Earth Observation (EO) micro-company based in Plymouth who specialises in satellite remote sensing. We have science and technology at the heart of the company and work to commercialise scientific research within both the marine and terrestrial fields, and provide a variety of EO products alongside bespoke services, scientific consultancy, training and education. We are currently involved in two UK Space Agency International Partnership Programmes, in Uganda and Colombia respectively, and have several other commercial contracts. We are also working towards launching our online portal to sell our unique EO products more widely.

We develop algorithms and software for processing satellite data, while also using commercial products to support this work; we mainly develop software using Python. The company has five employees, often hosts placements and internships, and is in an open-plan office on the Plymouth Science Park.

### **Project Description:**

The placement will support the development of environmental indicators and applications using Earth Observation data. Focus areas are likely to include visualisation of the relationships between complex data sets, development of environmental indicators linked to crop health, and the extraction atmospheric greenhouse gases. These activities will support international projects and commercial products and services Pixalytics is working on, and improve our understanding of what is happening in the world.

The role will include, but not limited to, analysing satellite data using open source software alongside coding, developing and testing algorithms for environmental indicators, and designing the best way in which these datasets can convey information to users.

We're happy to mould the post to the specific skills and interests of the successful candidate, to ensure that they, and we, get the most out of this opportunity.

### **Applicant Specification:**

#### **Minimum requirements**

- Numerically focused degree such as mathematics, statistics/data science or computer science including (at least) basic software development activities.
- The coding language we primarily use is Python, and so some experience in this language (or a compatible one) is required.
- Comfortable working both alone and in a small team.
- Curiosity of environmental issues and how these impact on the world.

#### **Preferred Additional Requirements:**

- Skills in C, IDL and JavaScript are also useful.
- Remote sensing knowledge is not a minimum requirement as we'll provide training during the placement.

#### **What We Hope To Offer:**

We hope to offer the successful candidate the experience of working in a small dynamic team with a wide range of Earth Observation skills and experience. As a result they will gain a variety of skills including:

- Understanding how to find, download, process and visualise a range of satellite datasets.
- Familiarisation with a range of image processing and GIS tools.
- Improved understanding of Earth Observation data
- Familiarisation of using coding to analysis and manipulate data.
- Quality assurance and testing skills.
- User centred design skills focussing on how best to develop solutions for customers.

#### **Further details:**

Telephone/Skype interviews for the role will take place the week commencing 8 April 2019

8 weeks minimum fixed term contract to be agreed with successful candidate but nominally with a start date around 17<sup>th</sup> June, 2019 to attend the SPIN Induction day at the Satellite Applications Catapult, and completion before 20<sup>th</sup> September for the Showcase the following week. Salary is £1,500 per calendar month gross.

#### **Closing Date for Applications: 5pm on the Thursday 28 March**

Applications should be made through the online form attaching a CV, before the closing date. 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.