

Analysis and Field Testing of Foresight Crops Services

Code: 19/41

Company: Global Geo-Intelligence Solutions Ltd.

Location: Nottingham

Company Description:

Global Geo-Intelligence Solutions (GGIS) is a geospatial data analytics company. We provide geospatial intelligence and engineering solutions for resource and infrastructure monitoring and management. We utilise data from earth observation satellites, global navigation satellite systems, IoT devices and other data sources to provide decision support intelligence to end users.

GGIS is focussed on harnessing geospatial data to enable informed advance decisions and provide solutions to local and global problems. Its award-winning project *Foresight Crops* is focused on geospatial intelligence for agricultural resource management through the use of satellite data, cloud computing and machine learning.

Our service offering includes developing algorithms, performing analysis on geospatial data such as satellite remote sensing images and GNSS data or other sensor data to model conditions and detect patterns and trends.

Agriculture and transport are our current areas of focus. Recent or current projects include:

- Disaster Resource Management in the Caribbean using Satellite Data for Post Disaster Management and Risk Assessment in the agriculture sector impacted by the severe hurricanes in the 2017 season.
- ***Foresight Crops*** is aimed at utilising multispectral satellite remote sensing data to model and predict insect infestation and swarming activities.

Project Description:

With the continuous rise in human population, global food security and agricultural resource management is of increasing importance. Insect infestation affects crop productivity and yields in terms of quality and quantity. This results in financial loss and increased food waste. The *Foresight Crops* service is focused on utilising satellite earth observation data combined with other datasets to provide information on insect infestation risk and soil degradation vulnerabilities. The intern will be involved in data analysis as well as, algorithm and mobile app testing.

The role for the intern is to coordinate the field testing and validation of the Foresight Crops cloud computing application. The applicant will need to liaise with the technical team and the potential end users. They will be required to:

Field Testing

- Provide training and support to end users in the field test on how to use the application (desktop and mobile app)
- Capture and log the end user experience.
- Capture and log technical issues and limitations.
- Capture and log quality of predictive analytics.

Satellite Data analysis

- Download and analyse satellite earth observation data and extract additional features to improve the machine learning models.

Applicant Specification:

Minimum Requirements:

Basic ability to program in any language (e.g. C/C++, Matlab, Python, etc). Self-motivated and a fast learner. Good interpersonal and communication ability.

Preferred Additional Requirements:

Experience of Geographic Information Systems (GIS) software such as QGIS or ArcGIS.

Further details:

8 weeks minimum fixed term contract to be agreed with successful candidate but nominally with a start date around 17th June, 2019 to attend the SPIN Induction day at the Satellite Applications Catapult, and completion before 20th September for the Showcase the following week. Salary is £1,400 per calendar month gross.

Closing Date for Applications: 5pm on Tuesday 21 May

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.