Finding the most vulnerable: Using advanced analytics to identify and count Internally Displaced People

Code

20/06

Company

Satellite Applications Catapult, Geospatial Intelligence Value Stream

Location

Harwell Campus, Didcot

Project Description

Internally Displaced People (IDPs) are among the most vulnerable people in the world, often having to leave their homes due to armed conflict, violence or human rights violations. Displacement happens to millions of people each year and according to the Internal Displacement Monitoring Centre, some 41.3 million people were internally displaced as of the end of 2018.

To best help those in need, the humanitarian sector requires accurate information on IDP movements and locations. This project aims to apply advanced analytical techniques to locate and calculate the sizes of IDP locations. Techniques involved (but not limited to) could include - geospatial analysis, site suitability, supervised/unsupervised classification, neural networks and deep learning.

The successful student will work within the Catapult's Geospatial Intelligence Team. They will be expected to design and develop a methodology for locating and analysing IDP locations from EO and Geospatial data.

Applicant Specification

- A successful student will have a good understanding of Geospatial and EO data.
- He/she will have computing skills, an ability to critically evaluate problems, suggest solutions and show initiative in a supervised R&D project.
- A passion to help some of the most vulnerable people on the planet
- Ability to work comfortably in an open and collaborative environment is a must.
- Students from the following and other similar courses can apply: IT, Remote Sensing, GIS, Geography, Physics, Engineering, Mathematics.

Minimum Requirements

Knowledge and experience in one or more of the following areas is essential – Computer science, physics, mathematics, remote sensing, GIS.

Preferred Additional Requirements

Fair knowledge of programming (python, gdal, Google Earth Engine) is an added advantage.

Application Closing Date

5pm Monday 9 March

Interview Dates

19 & 20 March and 23 & 24 March

While sending in your applications, ensure you will be available for an interview for the days mentioned above.

Start date & salary:

The internship is for 8 weeks fixed term contract starting on 15 June 2020 and the salary is £1,500 per calendar month. The SPIN induction day will be on the start date.