

A space-data platform to analyse converging climate and environmental stressors.

Code: 21/16

Company: Quosient Ltd. (trading as Earth Blox)

Location: Remote / Home working

Company Description:

With its unique easy-to-use interface, Earth Blox simplifies access to Petabytes of global satellite data, for global decision-makers. Satellites and planetary-scale data are available at unprecedented rates of acquisition for deforestation, urban expansion, and large-scale disaster mapping. Environmental consultancies, supply-chain managers, insurers, retail, and decision-makers in public institutions need to access this information yet are hindered by the complexity, cost, and skill levels required to fully make use of the value in these data. When boots-on-the-ground are not possible (Covid-19 a particular case-in-point), then Satellite data becomes essential.

Yet, to fully access this unique source of intel one needs solid coding-skills and Earth Observation expertise. Earth Blox removes these barriers: its innovation lies in the complete removal of coding skills, making space data accessible to the masses, globally. Earth Blox is a cloud-based software that enables planetary scale, near real time data analysis for climate mitigation and disaster mapping. The intern would join a dynamic, mission-driven and award-winning team.

Project Description:

During this project, the intern will support the development of Earth Blox, and in particular contributing to the STRATA platform, which is a specific version of Earth Blox being built for UNEP that focusses on the convergence of climate and environmental stressors. One main responsibility of the intern will be to develop the functionalities granting users accessibility to a large pool of diverse Earth Observation datasets. This work will consist of three components, the first will be to develop the functionality for users to access the data. This may be a combination of satellite data, other Earth Observation data, Area or Location data, as well as externally generated datasets.

The second component will focus on the analyses of the data, where the intern will contribute to the implementation of an algorithm within Earth Blox and the STRATA platform, enabling users of all expertise level to undertake complex analysis. Thirdly, we will build upon an existing suite of output formats including map interface for displaying output data live, graphs enabling statistical analysis, data download for offline use, and non-standard outputs such as GIF for presenting time series analysis. Throughout this work there is the opportunity for the

intern to get involved in the development of the User Interface, as well as contributing to the development of the back-end infrastructure that underpins all of Earth Blox.

Applicant Specification:

- The applicant either has attained, or is in the process of attaining a Bachelors degree in one of the following:
 - Geosciences or Geography
 - Physics or Engineering
 - Computer Science or any of its derivatives (e.g. Artificial Intelligence, Software Engineering, Web Design...)

Minimum Requirements:

- Technical Knowledge of Earth Observation, Remote Sensing, and Satellite analyses
- Understanding and experience of creating Earth Observation data processing workflows or algorithms
- Proficient in Python and/or Javascript
- Experience using Google Earth Engine
- Strong quantitative background
- Ability to work in a small team

Preferred Additional Requirements:

Additional skills that would be useful but are not essential:

- Knowledge of either the Google Earth Engine Python API and the JavaScript API;
- Knowledge of front-end development (HTML, CSS)
- Some experience with Cloud functionality, in particular Google Cloud Platform
- Experience using GIS software packages

Further details:

8 weeks minimum fixed term contract to be agreed with successful candidate. Virtual Induction Event to be held on 21 June, 2021. Ideally to complete before the start of the next academic year. Salary is £1,500 per calendar month gross.

Closing Date for Applications: 5pm Wednesday 5 May 2021

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.