Data Processing Intern

Role Description:
 Responsible for acquiring, processing, and preparing geospatial and satellite imagery (e.g., Sentinel-2) for further analysis and system integration.

Key Responsibilities:

- Retrieve remote sensing data (NDVI, CHM, contours, etc.) from providers (Sentinel
- Hub, GEE)
- Preprocess raster data (clipping, mosaicking, filtering)
- Generate layers (NDVI, NDRE, tree height, etc.) as input for ML/inference
- Collaborate with ML engineers, cloud engineers, and database team

Requirements:

- Bachelor's in Geodetic, Geography, or equivalent
- Hands-on experience with Sentinel-1/2, GEE, QGIS, rasterio, GDAL
- Understanding of NDVI/NDRE, CHM, and DEM concepts
- Python scripting experience preferred

Scope of Service:

- Deliver clean, clipped, and usable data for AOI on recurring schedules
- Generate accurate preprocessing pipelines and logs
- Align data format with system and frontend team for display

Detailed Tasks:

- C.1 Access Sentinel-2 data
    - Determine the area of interest (AOI) for each oil palm plantation.
    - Compile scripts or GEE queries to retrieve Sentinel-2 (optical) and Sentinel-1 (SAR) data according to the time period.
    - Prepare vegetation index data (NDVI), Canopy Height Model (CHM), and DEM contours.
    - Document parameters and data sources.
- C.2 Raster processing (clipping, mosaicking, filtering)
    - Mask clouds for Sentinel-2 using QA60 or cloud probability methods.
    - Mosaicking and compositing imagery based on a certain time span (e.g. monthly).
    - Clipping rasters according to AOI.
    - Prepare an automatic and reusable preprocessing pipeline

Application Deadline by: 18 June 2025
Link for Submission of Information: https://forms.gle/4VAG5Wj3deeqzwg98

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