

Assignment 5 – GGS416

Due October 19th, 2022

This assignment will reinforce what you have learnt over the past week, on clipping and writing images to new files.

For both sentinel-2 and planet data, your task this week is to collate and execute a script to obtain new imagery from both sources and clip the resulting images to an Area of Interest (AoI).

Your imagery should be:

- For a single unique location and must be different to assignment 4. Do not collaborate with other students. Your location should be entirely unique to you (e.g., related to your coursework project, your birthplace, a place you want to travel to visit etc.).
- For a recent time-period, e.g., in the last 1-2 months.
- From both sentinel-2 and planet (the aim is to get images from two different sources but with as little time gap between them as possible, to minimize variance).
- Clipped to a desired Area of Interest (AoI) that you define using a geojson boundary.
- Exported to a working .tiff file.

Once you have collated the code, either submit the underlying notebook as a pdf, or take screenshots of your notebook, and paste into a word document for inspection. Make sure you submit the clipped .tiff files you create.

Your aim is to compare the clipped images you obtain of your chosen location from sentinel-2 and planet. Submit the images side-by-side *with your critical analysis*.

50% of the grade is dependent on your submitted code, which should feature your annotations/comments, to demonstrate you understand what the API query code is doing. This matters because future classes build on this knowledge sequentially.

The point of this exercise is to enable you to become familiar with extracting imagery via an API, and then clipping these images to an Area of Interest (AoI), as this is critical for your coursework projects (and future careers!).

The Mason honor code applies.

You must ensure your submissions are in a respectable report format with proper headings, figure numbers, figure titles, citations, page numbers etc. Use this as an opportunity to demonstrate your professional scientific writing voice (e.g., authoritative in tone, and avoiding easy mistakes like abbreviations).