Week 3

Mining Asset Detection (MAD)

Data fetching - Approach

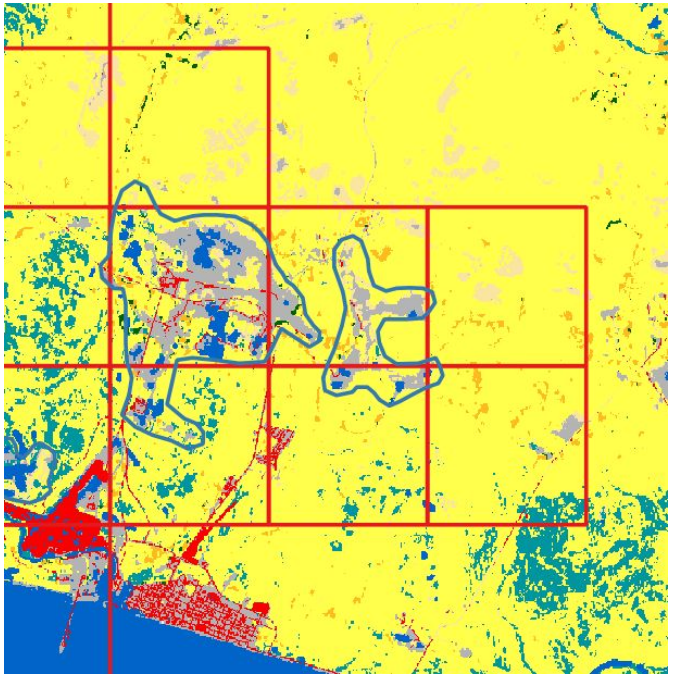
- Essentially translate the R-scripts to Python scripts
- `create_grid.py`:
  - Create the rasterization and prepare files for downloads
  - Important as this determines output sizes later
- `download_all.py`:
  - Download the images from GEE
  - Combine different images (Land coverage, maus, sentinel2 images)

Data fetching - Problems

- When creating grid…
  - Which projections are best for equal-area satellite images?
  - GEE requires EPSG:4326
    - Causes small pixel errors for conversions
  - What values to fix on? (YOLO input?)
- When fetching data…
  - GEE has a disappointingly slow interface when fetching from different sources

Data fetching - Combining images

- Land coverage:
  - Accessible from within GEE (but actually provided by AWS)
  - Maybe too good as input?
  - Inflates image size
  - Only available for 2020/2021



Demo

Data fetching - Plan next week

- Finish the data fetching pipeline
  - With what projection
  - What should be recorded
- Run the data fetching once fully
- Do everything we discussed last week
  - Log scaling for the features
  - Use Metadata
  - Use band extension