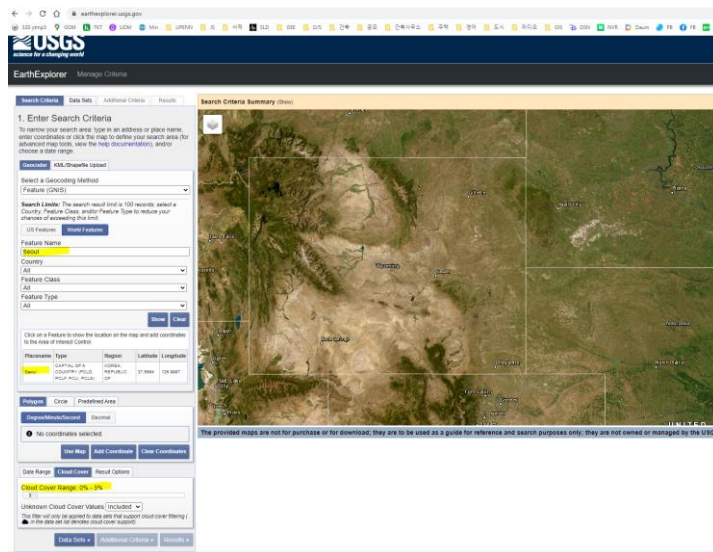# Tracking Urban Development using Landsat8 imagery data
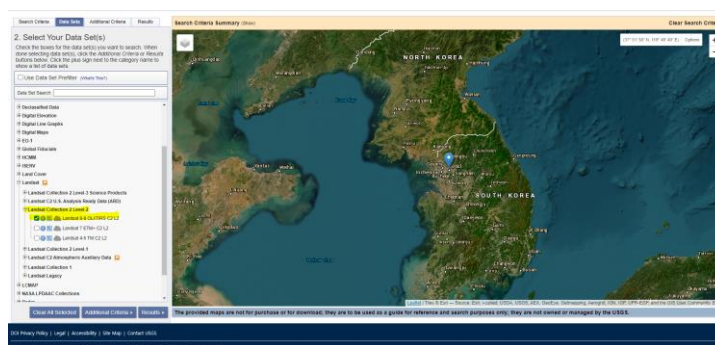
Land use classify Deep learning algorithm

1. Prepare Data
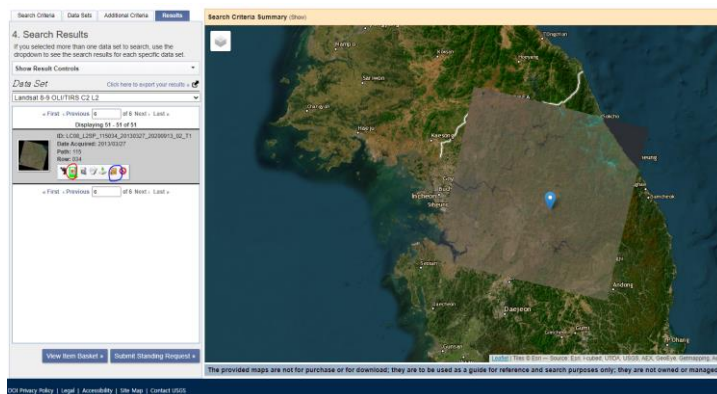
1. Download proper data from https://earthexplorer.usgs.gov/

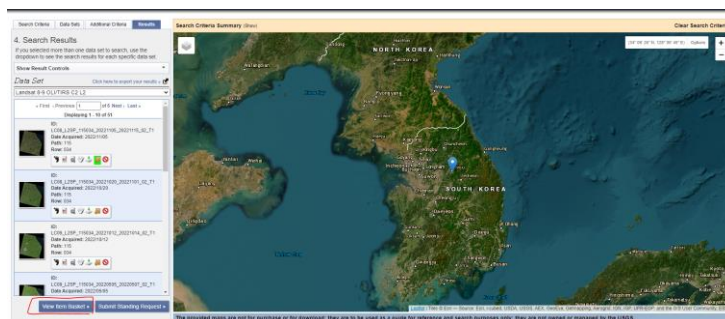2. Search the area of Interests and set Cloud Cover Range to 5%
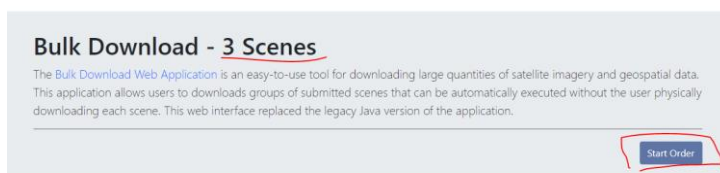

3. Choose Landsat 8 C2 L2 dataset

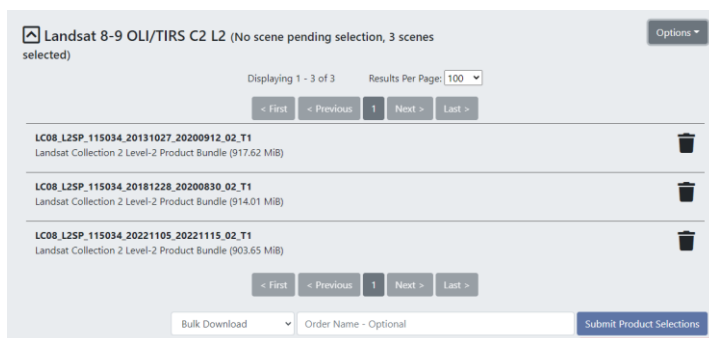4. Check the image footage and quality(red) and add to item basket(blue)

5. After adding every data you need click view item baskets

6. You can identify How many imageries you have here. Click start order to download it

Bulk Download - 3 Scenes

The Bulk Download Web Application is an easy-to-use tool for downloading large quantities of satellite imagery and geospatial data. This application allows users to downloads groups of submitted scenes that can be automatically executed without the user physically downloading each scene. This web interface replaced the legacy Java version of the application.

Start Order

7. Click Submit Product selections

Landsat 8-9 OLI/TIRS C2 L2 (No scene pending selection, 3 scenes selected)

Options ▾

Displaying 1 - 3 of 3   Results Per Page: 100 ▾

< First | < Previous | 1 | Next > | Last >

LC08_L2SP_115034_20131027_20200912_02_T1
Landsat Collection 2 Level-2 Product Bundle (917.62 MiB)

LC08_L2SP_115034_20181228_20200830_02_T1
Landsat Collection 2 Level-2 Product Bundle (914.01 MiB)

LC08_L2SP_115034_20221105_20221115_02_T1
Landsat Collection 2 Level-2 Product Bundle (903.65 MiB)

< First | < Previous | 1 | Next > | Last >
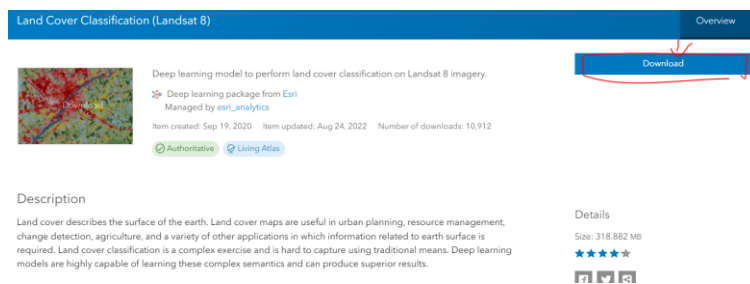
Bulk Download ▾ | Order Name - Optional | Submit Product Selections

8. launch the bulk downloader and select the folder you want to save these files
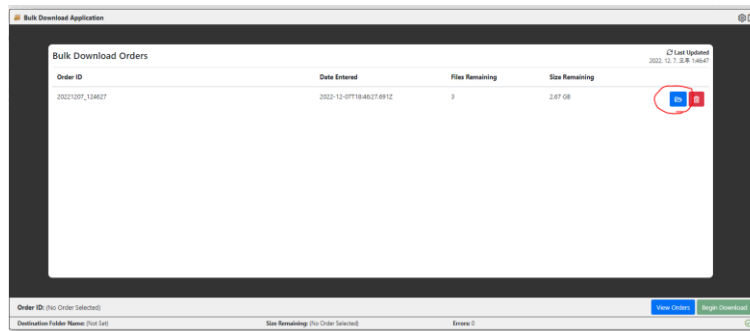
2. Prepare Deep learning packages

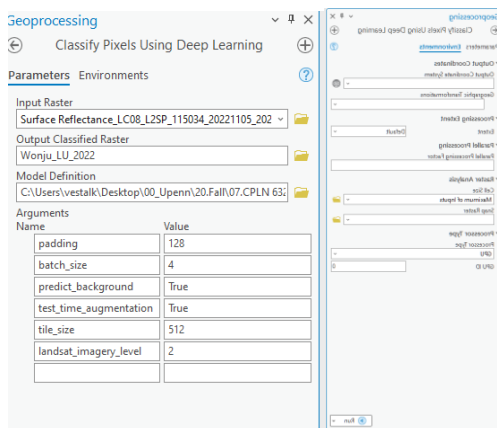1. https://www.arcgis.com/home/item.html?id=e732ee81a9c14c238a14df554a8e3225

3. Import Dataset into Arcgis and Classify Land Use

1. Import MTL surface reflectance files onto your map
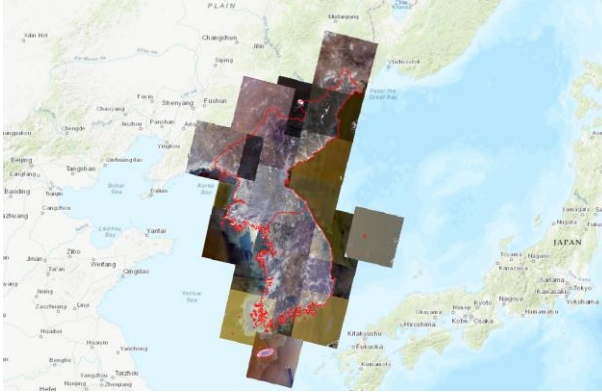
2. Run Deep learning

3. Get the final result

4. Reclassify the categories and mosaic to new raster by year

5. Clip mosaic raster using boundary polygon