Week 1 Learnings:

* ~~Anaconda Environment Setup:~~
* ~~Installed Anaconda and created a new environment named "geo\_env".~~
* ~~Installed GDAL, Geopandas, Rasterio, Scikit-learn, and Scipy in the environment.~~
* ~~Successfully installed TensorFlow GPU version for enhanced performance.~~
* ~~Remote Sensing Geospatial Data:~~
* Watched videos from IIRS-EduSAT on remote sensing and geospatial data.

[Still WATCHING]

* ~~Learned about different types of remote sensing data, including optical, radar, and thermal imagery.~~
* Explored applications of remote sensing data in agriculture, urban planning, disaster management, etc.
* ~~QGIS Installation and Basic Usage:~~
* ~~Installed QGIS software on the system.~~
* ~~Watched introductory tutorials on QGIS interface and functionalities.~~
* ~~Learned how to import shapefiles, raster images, and other geospatial data formats into QGIS.~~
* ~~Explored basic analysis tools and visualization options in QGIS.~~

NOTES

1.QGIS

TUTORIAL 1- https://youtu.be/DkyaEYNxEmQ?si=01qgMoHQRymrmp7D

Key Points:

Introduction to QGIS Interface: Opening QGIS and overviewing its layout and features.

Exploring Browser and Layer Interface: Utilizing the browser panel for dataset browsing and the layer panel for visualization, properties checking, and symbology customization.

QGIS Layers Panel for Visualizing Data: Managing map themes, hiding/showing layers, and adding data sources like vector or raster files easily.

Understanding Coordinate System and Visualization Options: Changing coordinate systems based on location selection for specific visualization. Utilizing scale and magnifier options for zooming in and out.

Introduction to QGIS Interface Features: Customizing tilt, rotation, exploring projection, and map navigation tools.

Introduction to QGIS Zooming Interface: Easy zooming in and out of the map, utilizing full zoom and navigating to the last or next level.

Saving a Project in QGIS: Saving projects by selecting the desired location, naming the project, and clicking 'save' to automatically save the added information and features.

TUTORIAL 2- <https://youtu.be/bPZ4cLlNRqY?si=6Y8MDxYcRZob-64x>

Key Points:

Accessing Panel and Toolbar Options: Merlin starts by opening a previously saved file in QGIS and directs viewers to the "View" menu to access panel and toolbar options.

Adding Panels: how to add panels like the layer order and processing toolbox to the QGIS interface.

Customization: how to customize the panels by adjusting their size and position within the interface for ease of use.

Adding Toolbars: how to add various toolbars, such as the digitizing toolbar, label toolbar, and attribute toolbar, and demonstrates how to arrange them according to preference.

Functional Demonstration: Throughout the tutorial, provides practical demonstrations of how each panel and toolbar can be used in QGIS, such as viewing statistics and customizing layer styles.

Flexibility: He emphasizes the flexibility of the QGIS interface, allowing users to customize panels and toolbars to suit their workflow preferences.

TUTORIAL 3- <https://youtu.be/8Sqr4FXKEWY?si=CmI7a7oP_nv6Ag1T>

Installing Plugins

TUTORIAL-4: <https://youtu.be/rCnBpJ6h1fU?si=fwA38QXGh8einDQO>

Using Measuring Tool and Identity Tool

TUTORIAL 5: <https://youtu.be/bWsSXVk6SFk?si=K9MnCH3MgbKU3Th9>

Using PAN MAP, zoom in , zoom out and spatial bookmark

TUTORIAL 6: <https://youtu.be/x97nKx_NiyM?si=Cmv170ce0skOlHFK>

Adding and Using Multiple Map Canvases.

TUTORIAL 7: <https://youtu.be/ZR-zz7NUZ1Y?si=QDXv66RJ6bWt-LU0>

Saving shapefile

TUTORIAL 8: <https://youtu.be/y5oGSNVDrQA?si=4gBDPGd1NktZEno3>

Adding loading shapefile

TUTORIAL 9: <https://youtu.be/Qz54AE_Tc9I?si=5ZjL1v4aDgqpc_uz>

Loading Raster Data in QGIS

TUTORIAL 10: <https://youtu.be/n-fWBmvmGMg?si=CLbCWFctws-gadw6>

Importing gps data and convert to shapefile using QGIS

2. RAINMAKER -worksafe prime