Forest Mapping and Monitoring with SAR Data: Software

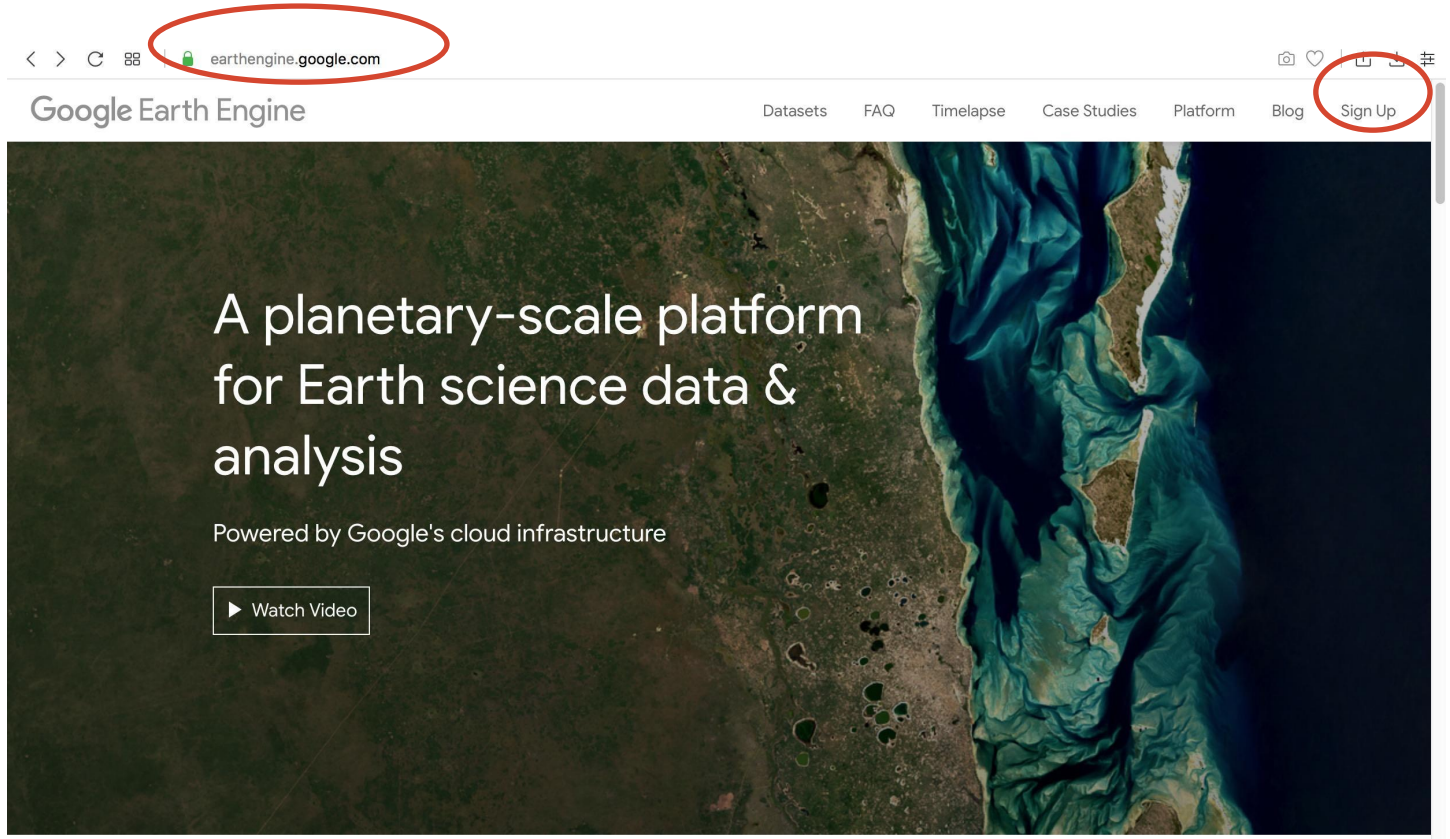
You can follow along with the demonstrations by using the software listed below. Recordings of each Part will be made available on YouTube within 48 hours after each demonstration for you to go through at your own pace.

- **Part One: Time Series Analysis of Forest Change**
- **Part Two: Land Cover Classification with Radar and Optical Data**
  - Google Earth Engine

- **Part Three: Mangrove Mapping**
  - Sentinel-1 Toolbox

Google Earth Engine https://earthengine.google.com

- Cloud based geospatial processing platform
- Available to scientists, researchers, and developers for analysis of the Earth's surface
- Contains a catalog of satellite imagery and geospatial datasets (including Sentinel-1):
- https://developers.google.com/earth-engine/datasets/catalog/
- Uses Javascript code editor
- Sign up for a (free) account



Meet Earth Engine

Sentinel-1 Toolbox

- A free and open source software developed by ESA for processing and analyzing radar images from Sentinel-1 and other satellites
- Sentinel-1 Toolbox is part of the Sentinel Applications Platform (SNAP). To install the Sentinel-1 toolbox, you have to install the Sentinel Applications Platform.
- It can be accessed through the following site: http://step.esa.int/main/download/
- Include the SNAPHU plugin for SNAP (on a Windows machine you can install it as a plugin instead of a separate installation. Mac users still have to use the separate installation method).

  - http://step.esa.int/main/third-party-plugins-2/snaphu/