Cloud Native Geospatial, with the Planetary Computer

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Me

Geospatial infrastructure engineer, former data scientist, former economist

PANGEO

A community platform for Big Data geoscience

You

You’re producing geospatial data

You’re interested in the analysis of geospatial data

What is the Planetary Computer?

1. Data catalog

Datasets available through the Planetary Computer API

Our largest data sets can be queried and accessed through our Planetary Computer API. We are continuing to expand the data available through the API, and continuing to bring new data sets to Azure. If you are interested in seeing additional data on-boarded or published through our API—or if you have data you'd like to contribute—let us know.

Landsat 8 Collection 2 Level-2

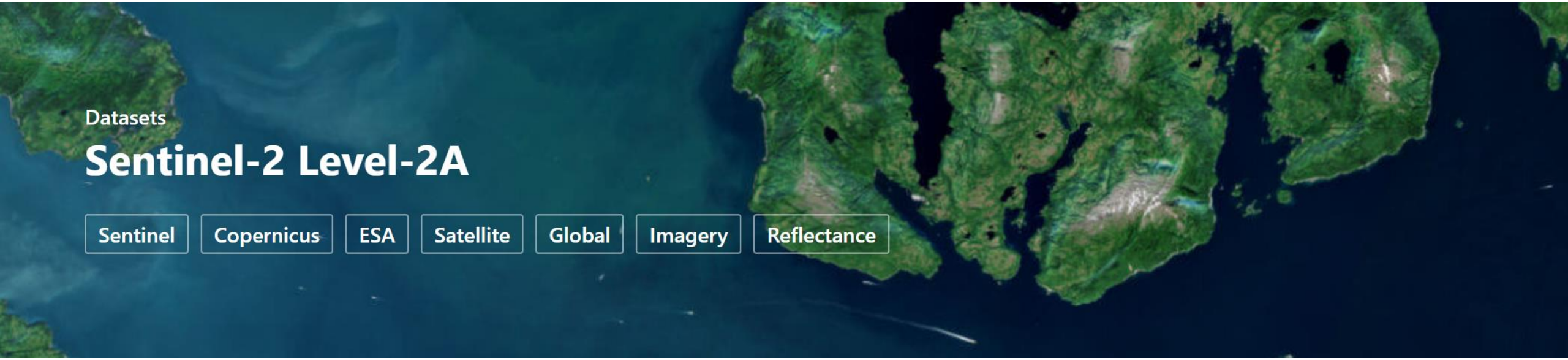
Landsat 8 has captured 30m-resolution imagery of the Earth since 2013. This dataset contains global, atmospherically-corrected imagery from Landsat Collection 2.

Landsat USGS NASA Satellite Global Imagery Reflectance

Sentinel-2 Level-2A

The Sentinel-2 program provides global imagery in thirteen spectral bands at 10m-60m resolution and a revisit time of approximately five days. This dataset contains the global Sentinel-2 archive, from 2016 to the present, processed to L2A (bottom-of-atmosphere).

Sentinel Copernicus ESA Satellite Global Imagery Reflectance



Datasets

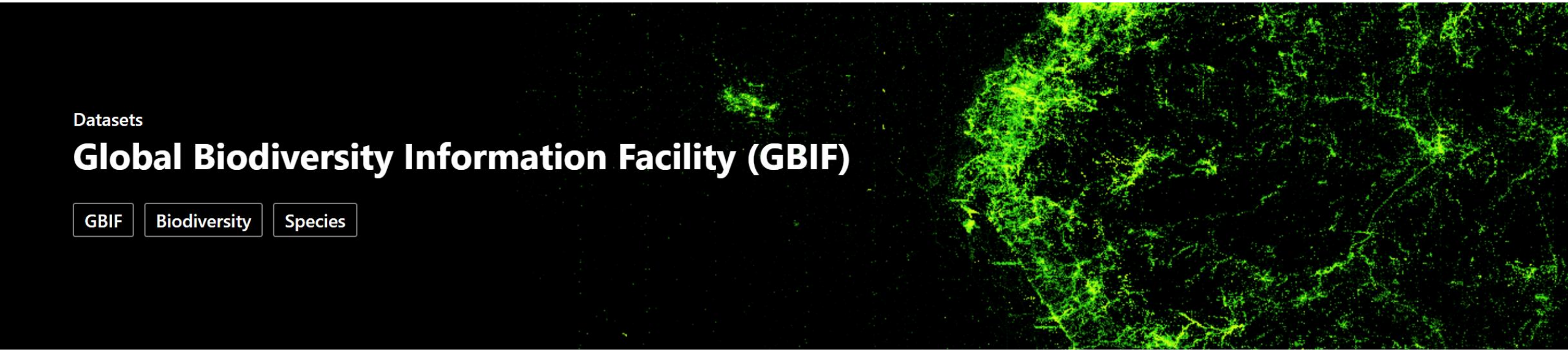
Sentinel-2 Level-2A

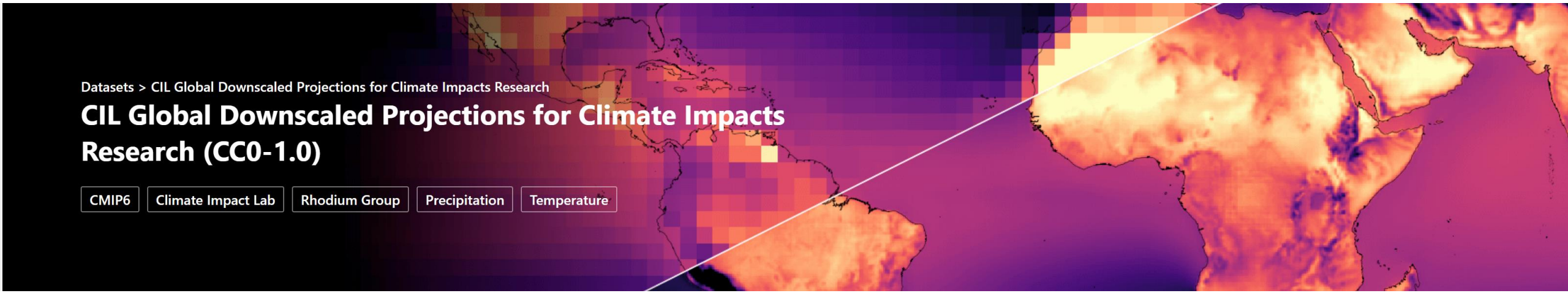
Sentinel | Copernicus | ESA | Satellite | Global | Imagery | Reflectance

Datasets

Global Biodiversity Information Facility (GBIF)

GBIF | Biodiversity | Species

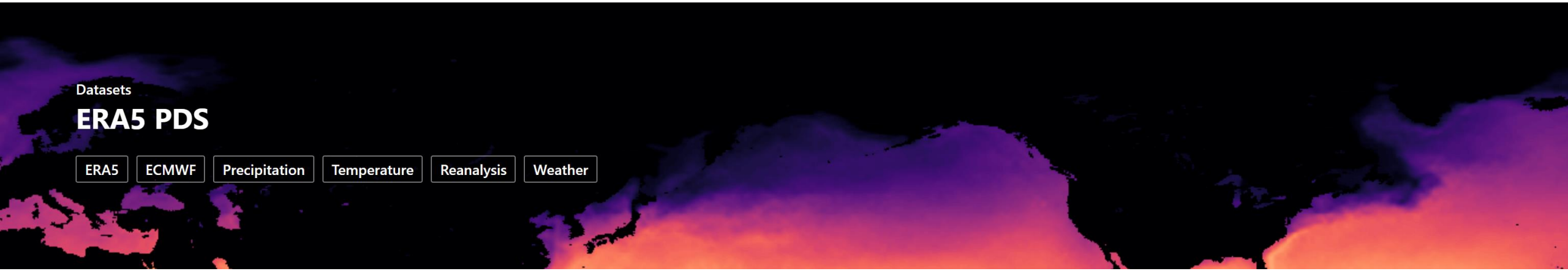




Datasets > CIL Global Downscaled Projections for Climate Impacts Research

CIL Global Downscaled Projections for Climate Impacts Research (CC0-1.0)

CMIP6 | Climate Impact Lab | Rhodium Group | Precipitation | Temperature



Datasets

ERA5 PDS

ERA5 | ECMWF | Precipitation | Temperature | Reanalysis | Weather

2. APIs

3. Compute

Data + APIs + Compute

Data access

You have access to all the data

You have access to *all* the data

The “download” model

1. Download the data locally
2. Do your analysis

The download model breaks down at scale

Compute → Data

Compute → Data

… how?

http://pangeo.io

https://discourse.pangeo.io/

https://github.com/pangeo-data/

https://medium.com/pangeo

@pangeo_data

PANGEO

A COMMUNITY PLATFORM FOR BIG DATA GEOSCIENCE

Demo

planetarycomputer.microsoft.com

discourse.pangeo.io