Land Use / Land Cover classification with the Planetary Computer

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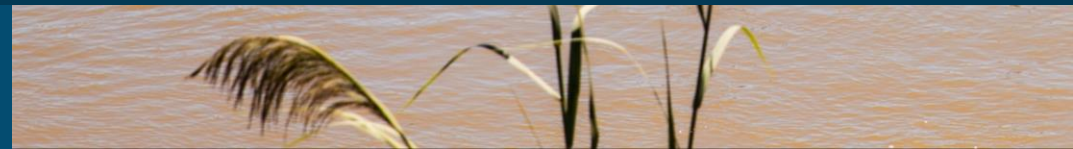
Announced goals to protect our ecosystems

Building, deploying, and accelerating a **Planetary Computer** through our **AI for Earth** program that uses big data and technology to monitor, model, and manage the natural world.

We're taking responsibility for our ecosystem impact by **committing to protect more land than we use by 2025**.



Planetary Computer Components

Geospatial **data** (~12PB by end of 2021)

Data querying and processing **APIs**

(Metadata based on STAC)

Compute environment for scientific workflows

(Partner) **applications** that put all of the above to work for sustainability


Demo

Wrapup

- Used the Planetary Computer's Data, APIs, and Compute
- STAC to find and query data
- xarray to preprocess
- PyTorch model for classification
- Dask + GPUs for scaling everything

Microsoft

aka.ms/gtc-landcover

planetarycomputer.microsoft.com