



Annotating ML training and test data with Bokeh/HoloViews/GeoViews



James A. Bednar
Anaconda, Inc.

Who am I?

James A. Bednar, PhD.

University of Texas at Austin (2002)

Reader (Associate Professor)

University of Edinburgh (2003-2015)

Manager, Technical Services

Anaconda, Inc. (2015-)

Manager for OSS projects

**GeoViews, EarthSim, EarthML,
HoloViz, PyViz, HoloViews, Datashader,
Colorcet, hvPlot, Panel, Param, etc.**



Collaborators for Earth-science topics

NASA Goddard (Dan Duffy)

US Army Corps of Engineers (ERDC)

Pangeo (Columbia U., NCAR/UCAR, etc.)

USGS (Rich Signell)

Annotating ML data with Bokeh and HoloViews

- A variety of special-purpose tools like [labelling](#) are available for annotating/tagging/labeling data for machine-learning pipelines. If those work well for your project, great!
- What if you need something more customized to your workflow? Do you have to build a new tool from scratch?
- Not if you use Python, where you can now easily build custom apps based on [Bokeh's drawing tools](#) to collect user input.
- Here, we'll look at a Jupyter notebook that shows how to build such apps using the high-level [holoviews/geoviews](#) interfaces that can make full-featured custom applications in just a few lines of Python code.

Viewing and running the example notebook

View the notebook:

1. Visit ml_annotators_on_examples.pyviz.org

(This is a static website without Python running, so you can see the code and previous output but not all live code will work)

Run a read-only cloud-hosted notebook:

1. Visit ml_annotators_on_examples.pyviz.org
2. Click on “View a running version of this notebook”
3. Click on **Kernel/Restart & Run All**

Run and edit on your own machine:

1. Install conda.io/miniconda.html (for mac/win/linux)
2. Download and unpack [ml_annotators.zip](#)
3. `cd ml_annotators`
4. `conda install anaconda-project`
5. `anaconda-project run notebook`
6. Click on **Kernel/Restart & Run All**