

Backcountry Recreation

They want to make sure folks aren't doing recreational activities near dangerous areas.

They were previously using geotagged photos, but folks are doing that less so they used data from Strava and AllTrails

Uses MaxEnt model since absences are unknown

There are problems with the data from Strava and AllTrails - they aren't research tools so they allow some user edits that make the data less accurate

Better Open Source Hag with Project Pythia

can't just reduce barriers, need to require active participation and support

Community First Open Source

First contrasts against Company-backed OSS

Keynote: Responsible AI

Not interested in the skynet problem. That's boring.

So what's interesting/new?

Gen AI has increased the accessibility of AI systems - eg it came code for you

how do we keep AI from harming people (biases, eg)

review of old biases

culture of making the AI take the blame vs the programmers or the training

regulation is actually something that can help!

Algorithmic auditing is a new field, but the speaker would like to see it evolve

SciPy Plenary 3

napari -new releases and new steering council.

spyder - 6.x alpha out now

yt - 4.1 and 4.2 releases.

pybind11 and nanobind - C++ api for python.

networkx - network analysis in python

lots of new numpy features. 2.0 release this winter.

Jupyter - lots of new releases like Lab 4.0 and Notebook 7.0. JupyterLite released as well.
Jupyter server 2.0 released

Ibis - 6.0 release

Small Town Police Accountability

Police tend to hide substantial amounts of data.

Policing differs based on where you are and who you are.

Why small towns? It's a worse problem in small towns despite what you're used to from the news information available is bimodally distributed

A lot of the data is open source.

Seattle has good data available.

Other cities need scraping. (And or Selenium)

For manual collection - you may need to submit a FOIA/FOIL/Open Records request if stonewalled.

Once you have data, need to clean it up.

make sure that anonymous in a way that you can't infer the person so they can't be reharmed.

Ultrafast Visualization

fastplotlib

Use GPUs to make fast, interactive visualizations

pygfx is a twice-removed abstraction layer to Vulkan, DirectX12, and Metal

demos incredibly impressive - running over the net. Conference is in Tx and data center is on the east coast.