STREAMLIT: A PYTHON FRAMEWORK FOR DATA APPS

SI Carpentries Brown Bag May 26, 2021

SHARING AN ANALYSIS: NOTEBOOKS

During Data Carpentry workshops, we showed how to work in either Jupyter notebooks (for Python) or R Markdown (for R)

SHARING AN ANALYSIS: NOTEBOOKS

As Paula showed at March's Brown Bag, RMarkdown can combine code and explanation, and can be exported as PDF, Word, or HTML web page.

Jupyter can do the same (except for Word)

(Show Jupyter example)

IN BETWEEN: BINDER

Binder does provide some interactivity in your Python or R code, but only if the user is familiar with Python or R -- or you do a great job with your explanations.

IN BETWEEN: BINDER

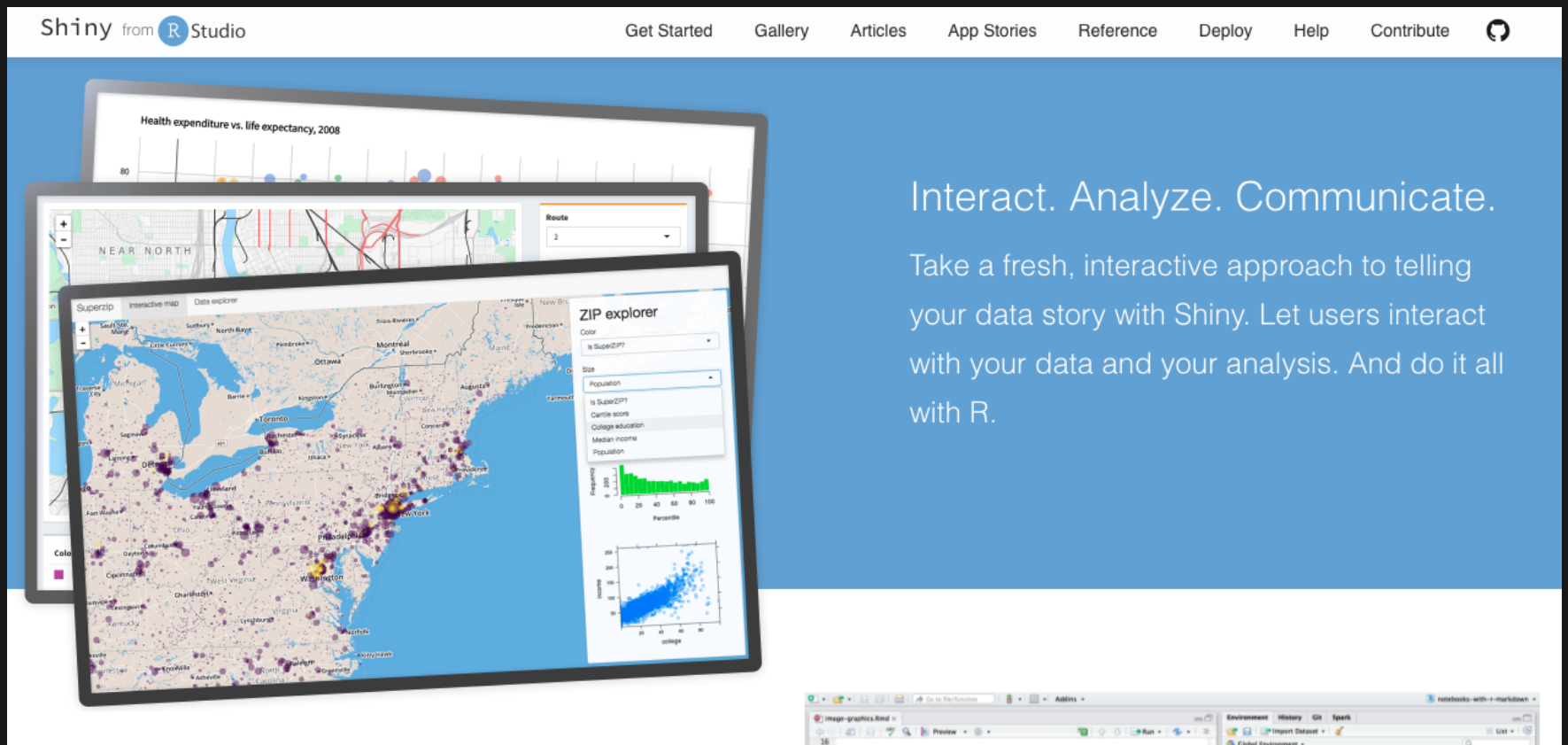
I gave a Brown Bag demo on Binder way back in the *Before Times*:

https://github.com/MikeTrizna/binder_demo

INTERACTIVE DATA APP

R users have had a good canonical solution for this problem since 2012: RShiny

INTERACTIVE DATA APP



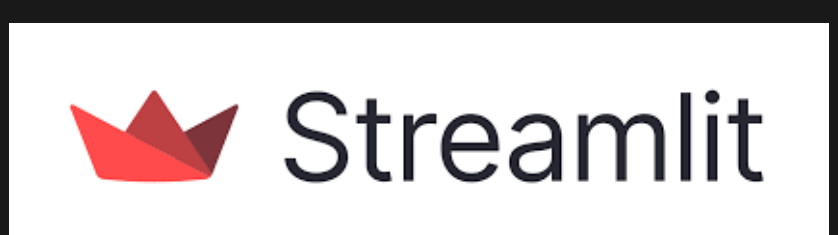
INTERACTIVE DATA APP

Many similar Python solutions have been developed since then:

- Dash
- Panel
- Voila

STREAMLIT

But Streamlit (released in October 2019) has emerged as the top Python solution for building interactive data apps.



STREAMLIT

Pros: Comes with a great collection of pre-built widgets that lets you develop fast

Cons: You don't get the pixel-level customization that you might with other frameworks (or building your own web app)

DEMO TIME

STREAMLIT SHARING

Streamlit announced a Beta program where they will host Streamlit apps for you, back in October 2020.

Need to request an invite, and then you are limited to 3 apps being shared at a time.