

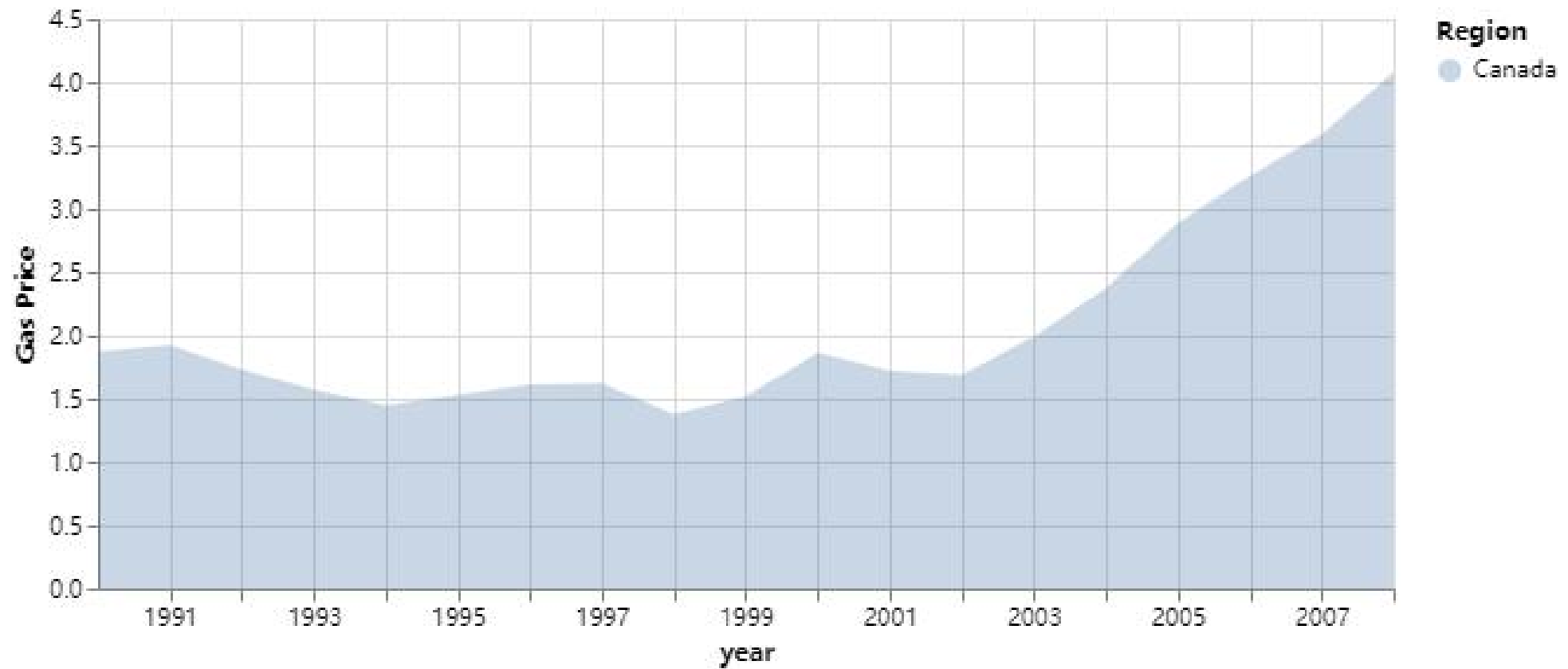


Knowledge Discovery and Data Mining

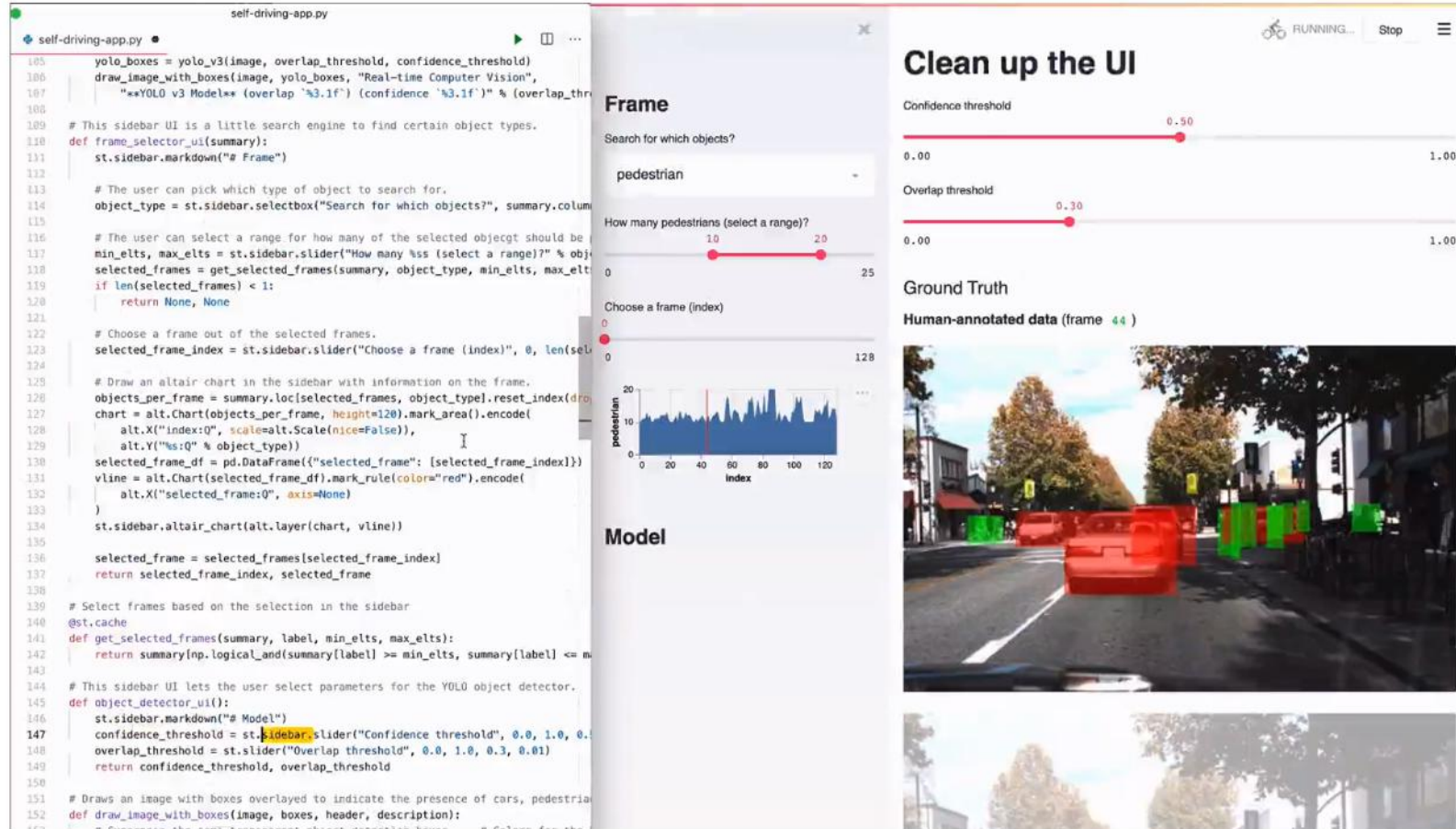
Lab 11 Interactive Design

Xuan Song
Songx@sustech.edu.cn

Interaction



Python Streamlit.io



Rapidly build all the apps you need with Streamlit's [open source library](#). You can find the full source code for the semantic search engine above [here](#).

Very Powerful.



How to?

1. In your terminal, type “conda install streamlit” (Make sure you are in your environment first!)
 2. In the same terminal, type “streamlit hello” (It should work 100% on your local computer without port issues)
- * If there is an error with Git path, you will also want to “conda install git”.

Then after you “streamlit hello”, you will be asked to fill in your email (totally optional) if it is the first time you are using streamlit. Let's just ignore it and wait till the program pulls up a demo page:

```
If you're one of our development partners or you're interested in getting
personal technical support or Streamlit updates, please enter your email
address below. Otherwise, you may leave the field blank.

Email:

Privacy Policy:
As an open source project, we collect usage statistics. We cannot see and do
not store information contained in Streamlit apps. You can find out more by
reading our privacy policy at: https://streamlit.io/privacy-policy

If you'd like to opt out of usage statistics, add the following to
%userprofile%\.streamlit/config.toml, creating that file if necessary:

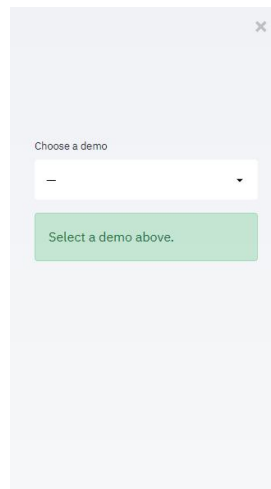
[browser]
gatherUsageStats = false

Welcome to Streamlit. Check out our demo in your browser.

Local URL: http://localhost:8501
Network URL: http://10.20.15.89:8501

Ready to create your own Python apps super quickly?
Head over to https://docs.streamlit.io

May you create awesome apps!
```

A screenshot of a web interface for selecting a demo. It features a light purple header with a close button (X). Below the header is a section titled "Choose a demo" containing a dropdown menu with a downward arrow. At the bottom of this section is a green button with the text "Select a demo above."

Welcome to Streamlit! 🙌

Streamlit is an open-source app framework built specifically for Machine Learning and Data Science projects.

👉 Select a demo from the dropdown on the left to see some examples of what Streamlit can do!

Want to learn more?

- Check out streamlit.io
- Jump into our [documentation](#)
- Ask a question in our [community forums](#)

See more complex demos

- Use a neural net to [analyze the Udacity Self-driving Car Image Dataset](#)
- Explore a [New York City rideshare dataset](#)



DataFrame Demo

DataFrame Demo

This demo shows how to use `st.write` to visualize Pandas DataFrames.

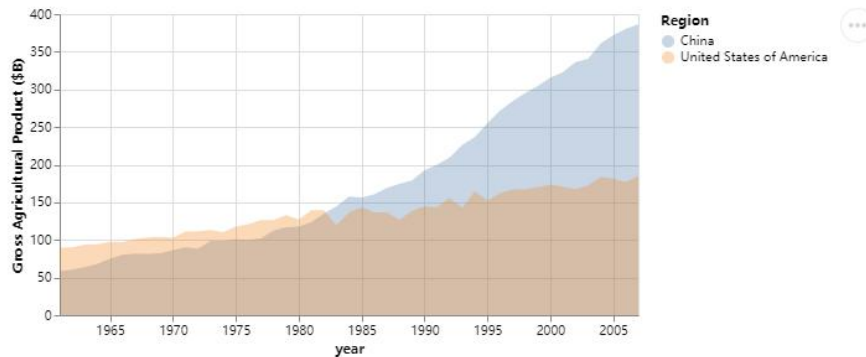
(Data courtesy of the [UN Data Explorer](#).)

Choose countries

China X United States of Amer... X

Gross Agricultural Production (\$B)

	1961	1962	1963	1964	1965	1966
China	58.3407	60.6909	63.9427	68.4626	74.7479	80.4459
United States of Ameri...	89.8166	90.2750	93.7004	94.3237	97.7041	97.2772



The demo comes with many kinds of interactive visualization design, for today, we will only look at the DataFrame Demo.

Look at the dataframe demo (with show code checked), and now, try to create your own app.py that reads in some data and show the data as well as the plot.

You will need to put your code in a .py file, you will run it by “streamlit run app.py” (make sure you are in the correct folder!)

Exercise 1

Now, visualize this!



gas_prices.csv

For Beginners
--Easy

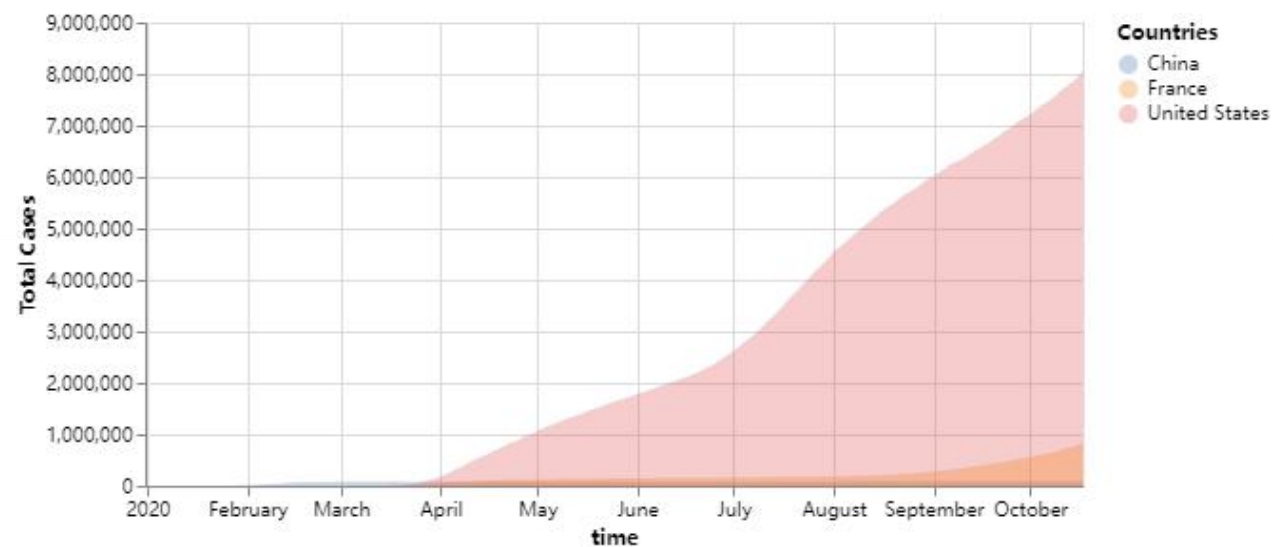
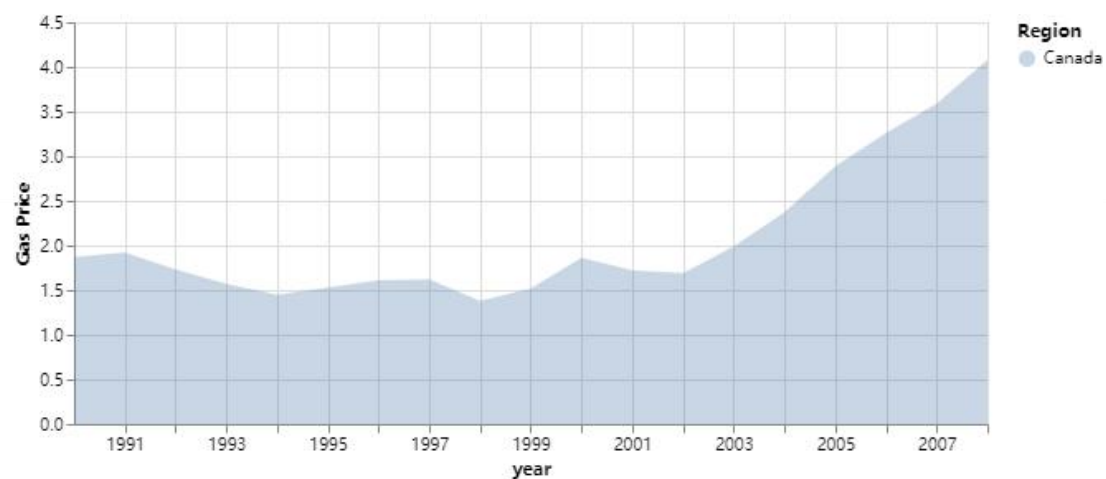


owid-covid-data.csv

Hard Mode

You will want to first transform the data to really make it fit the visualization plot.

Exercise 1 Example Result





End of Lab 11