

# Interactive Visualization

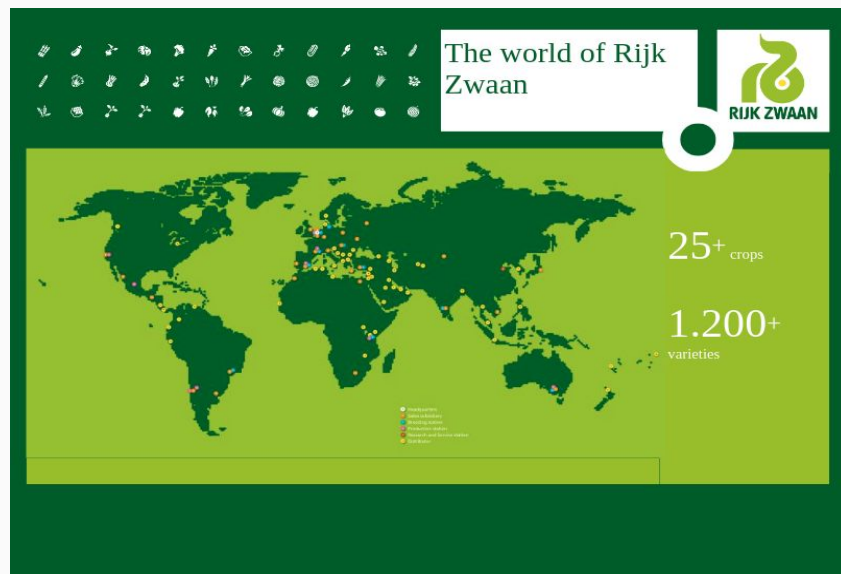
{Rotterdam Python Meetup #3}

26 September 2019

```
{'name': 'ricky lim',  
 'github': 'ricky-lim',  
 'linkedin': 'r11mr1',  
 'twitter': 'rlim_Hsapiens',  
 'workplace': 'rijk zwaan'}
```

# Rijk Zwaan

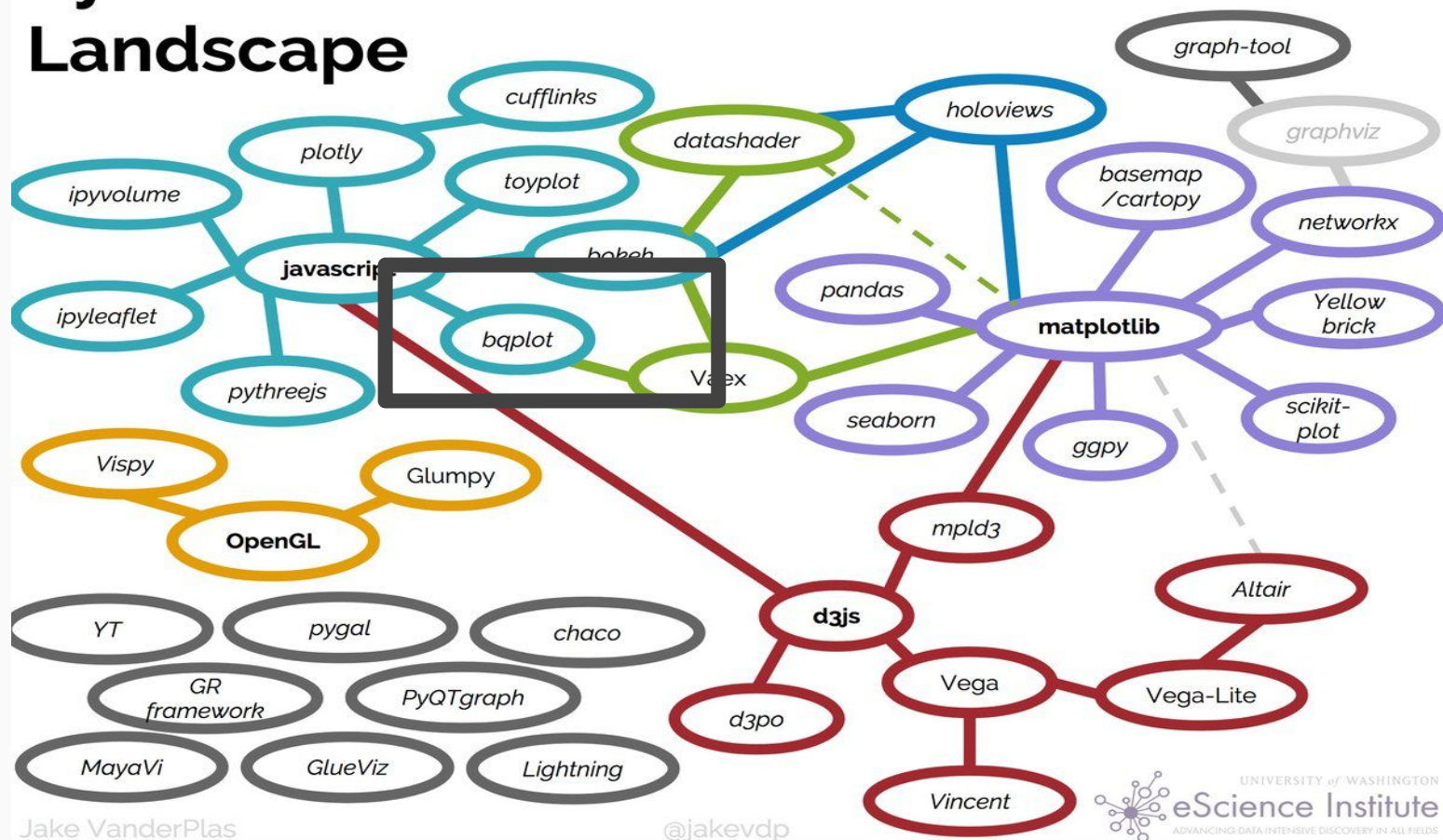
<https://www.rijkszwaan.com/>



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- Python visualization
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# Python's Visualization Landscape

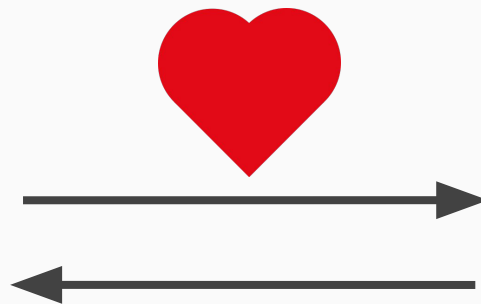


Jake VanderPlas

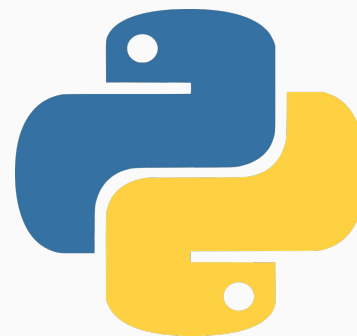
@jakevdp

UNIVERSITY of WASHINGTON  
eScience Institute  
ADVANCING DATA-INTENSIVE DISCOVERY IN ALL FIELDS

# Interactive widgets

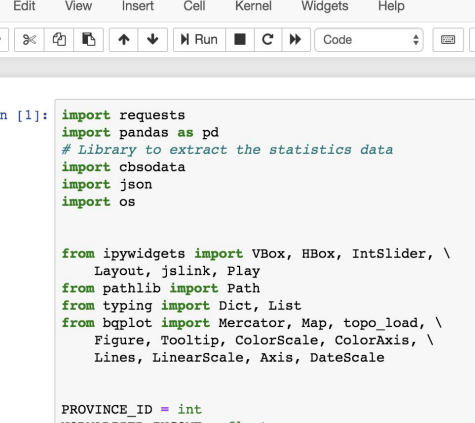


`IntSlider(value=72)`



<https://ipywidgets.readthedocs.io/en/latest/>

# Voilà

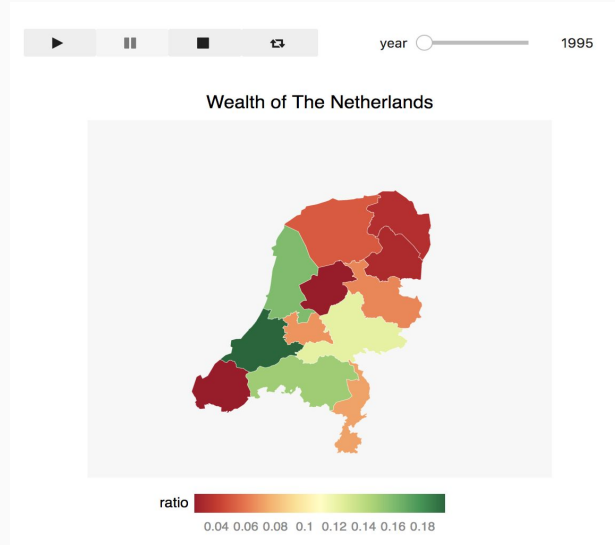


The screenshot shows a Jupyter Notebook window titled "wealth\_of\_nederland". The interface includes a top menu bar with options: File, Edit, View, Insert, Cell, Kernel, Widgets, and Help. Below the menu is a toolbar with icons for saving, undo, redo, running, and other standard Jupyter actions. The main area displays a code cell with the following content:

```
In [1]: import requests
import pandas as pd
# Library to extract the statistics data
import cbsodata
import json
import os

from ipywidgets import VBox, HBox, IntSlider, \
    Layout, jslink, Play
from pathlib import Path
from typing import Dict, List
from bgplot import Mercator, Map, topo_load, \
    Figure, Tooltip, ColorScale, ColorAxis, \
    Lines, LinearScale, Axis, DateScale

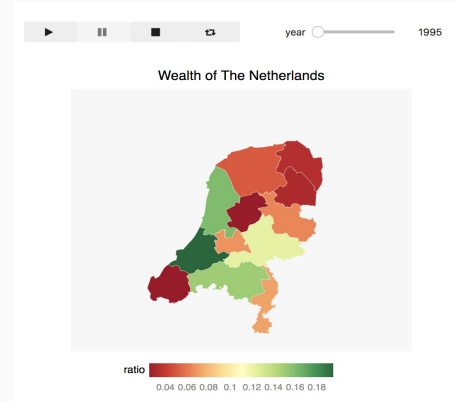
PROVINCE_ID = int
NORMALIZED_INCOME = float
```



<https://github.com/QuantStack/voila>

# Wealth of Nederland

<https://github.com/ricky-lim/wealth-nederland>



# ipybible

<https://github.com/ricky-lim/ipybible>

## Genesis 1



## Genesis 1: 1-31

- 1 In the beginning God created the heaven and the earth.
- 2 And the earth was without form, and void; and darkness was upon the face of the deep. And the Spirit of God moved upon the face of the waters.



# Lessons learned

## Goodies

- Two-way communication
- Python data science
- Workflow towards web

## Challenges

- Memory overhead
- State management
- Lack of best practices

# Resources

- bqplot: <https://github.com/bloomberg/bqplot/>
- ipywidget: <https://ipywidgets.readthedocs.io/en/latest/>
- cbs: <https://pypi.org/project/cbsodata/>
- bible source api: <https://getbible.net/api>
- spacy: <https://spacy.io/usage>
- scikit-learn: <https://scikit-learn.org/stable/>
- wordcloud: [https://github.com/amueller/word\\_cloud](https://github.com/amueller/word_cloud)
- ipyvuetify: <https://github.com/mariobuikhuizen/ipyvuetify>