



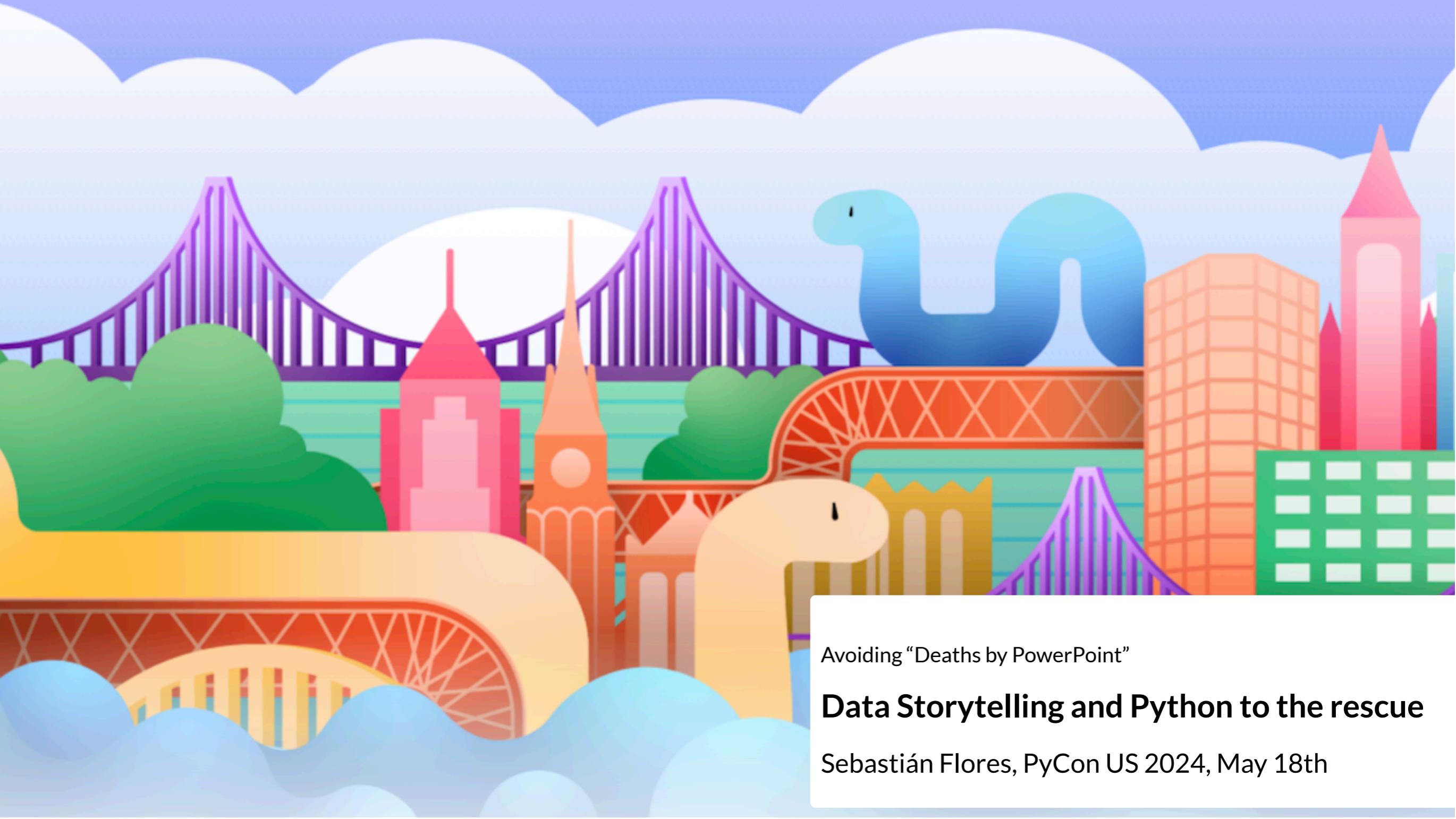
Death by PowerPoint (noun):

A painful experience caused by a long, boring presentation with too many slides filled with text, small fonts, and endless bullet points.

Common symptoms include sleepy eyes, yawning, and a strong desire to escape.

Example: “After an hour, I felt like I was dying by PowerPoint.”

(See also: meeting purgatory, presentation torture)

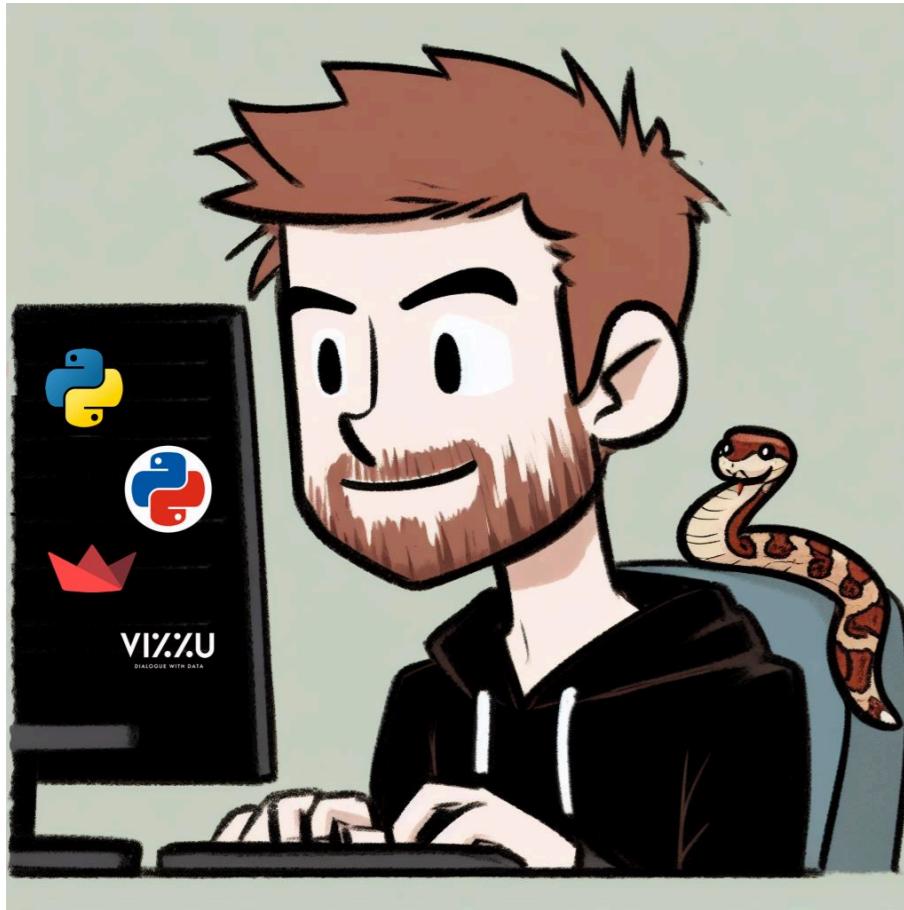


Avoiding “Deaths by PowerPoint”

Data Storytelling and Python to the rescue

Sebastián Flores, PyCon US 2024, May 18th

About me



- Sebastián Flores aka sebastiandres
- Member of Python Chile
- Collaborator to Streamlit and Vizzu
- Chief Data Officer at uPlanner

Agenda

- Storytelling principle #1:
Never give away the ending!
Always raise the stakes!
- No
- Nope
- No chance



Data Storytelling

Why Data Storytelling?

¿Storytelling?



Stories are
the first human technology

Ohh, those hackable brains

Peak-End Rule

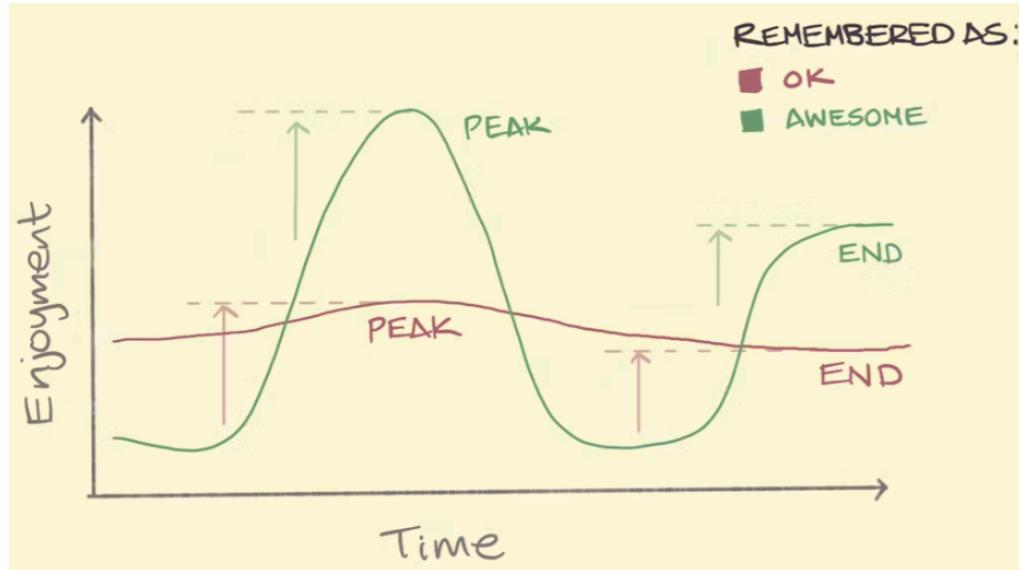
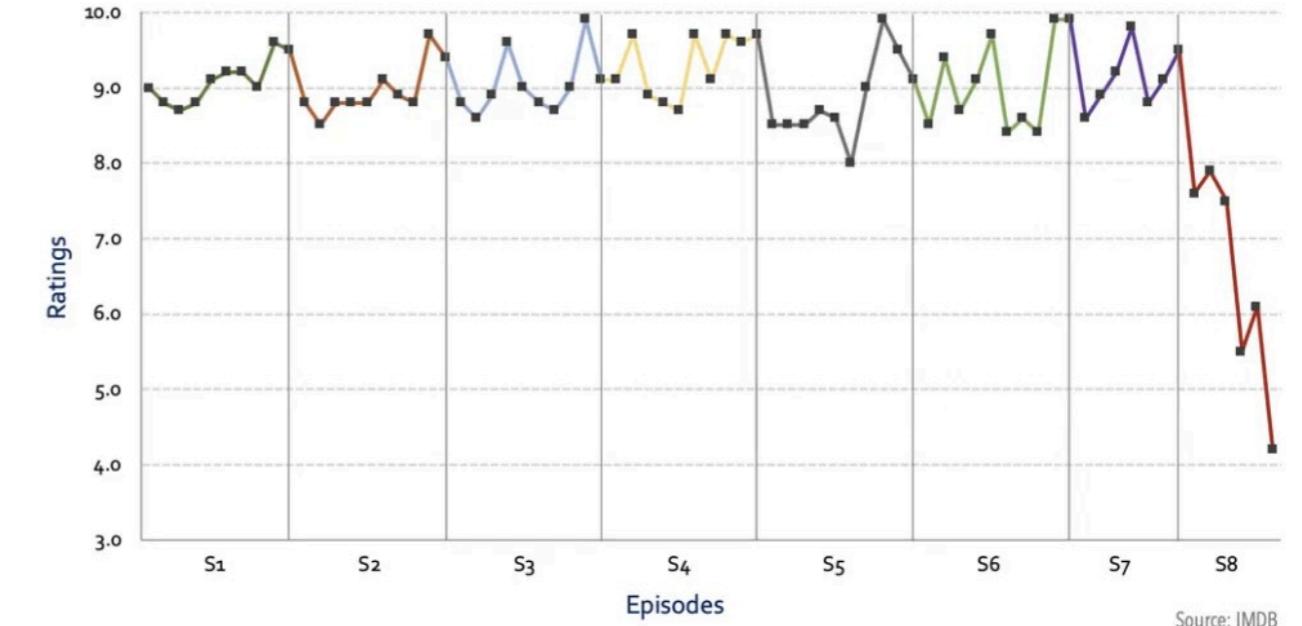


Image by sketplanation



Game of Thrones rating, by Kelvin Neo

Data Storytelling:
Using storytelling **tricks** to create
presentations that will be **remembered**
and that **create impact**

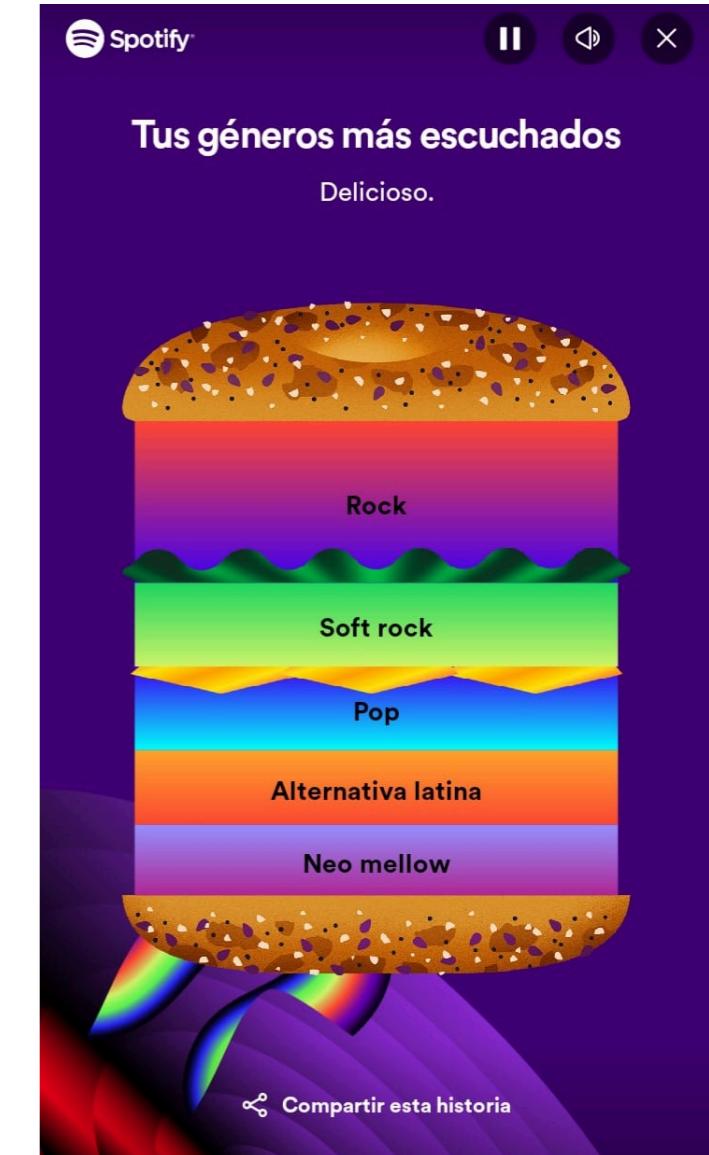


Emotions create actions

The best example



How to make millions of people share statistics on social media?

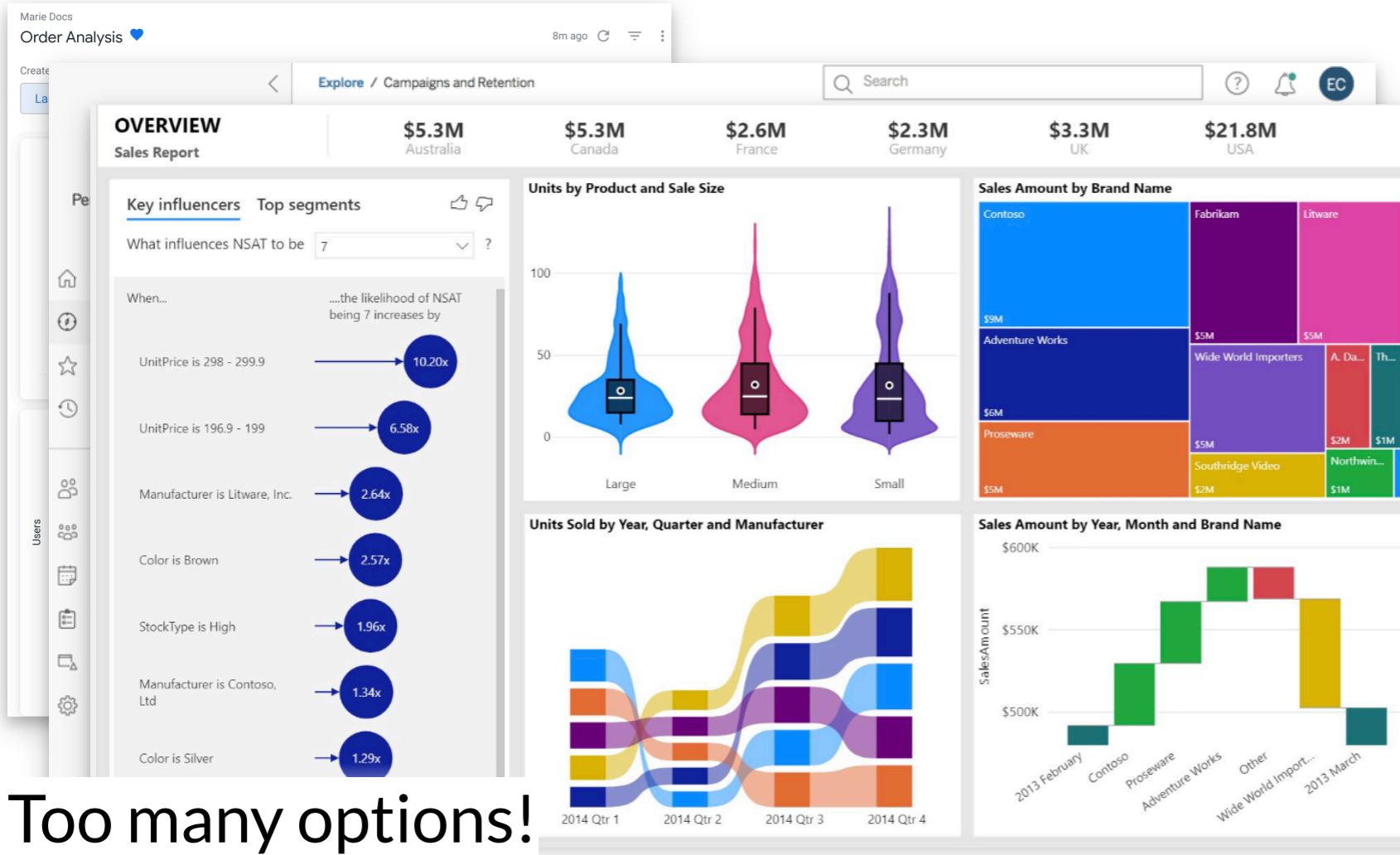


The background of the slide features a vibrant, cartoonish cityscape. It includes several suspension bridges in shades of pink and purple, a Ferris wheel, a green building with a red roof, and a cluster of modern skyscrapers. The sky is filled with fluffy white clouds.

Data Storytelling

Tool #1: Visualization

Data Exploratory Viz



User cannot be responsible of finding your insights.

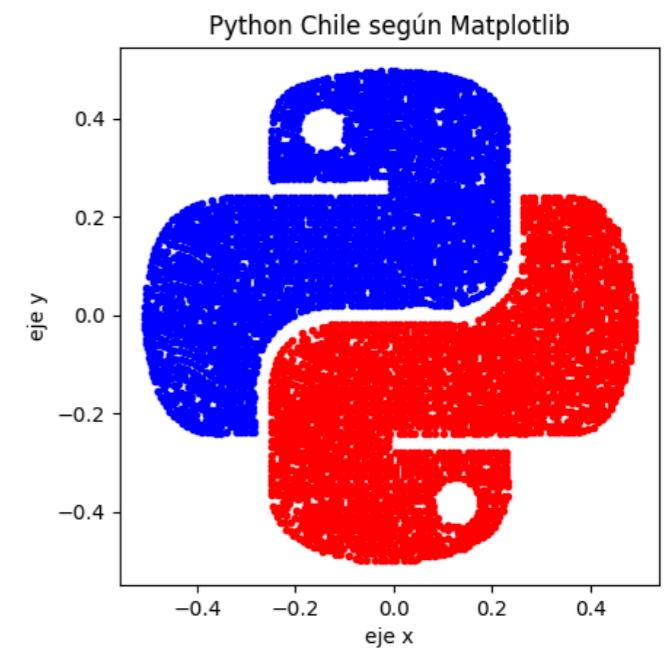
Storytelling principle #2:

Details are important,
but not all details are important.

Data Explanatory Viz

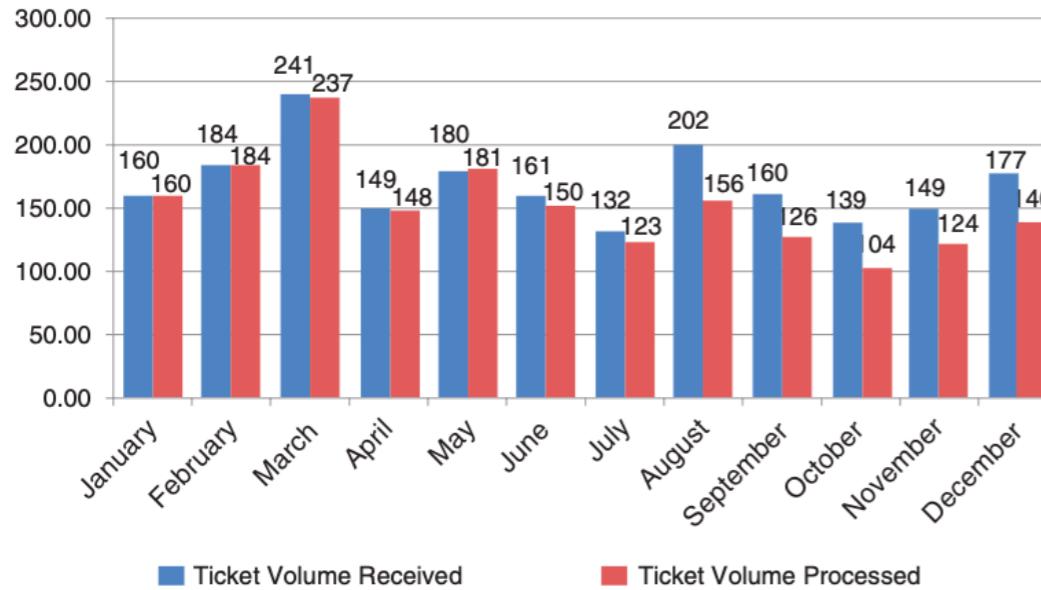
So many good python libraries!

- Classic: Matplotlib
- Rising starts: Seaborn, Plotly, Altair
- Other: bokeh, plotnine, pygal and more!



Pick one and master it

Ticket Trend



Ticket volume over time



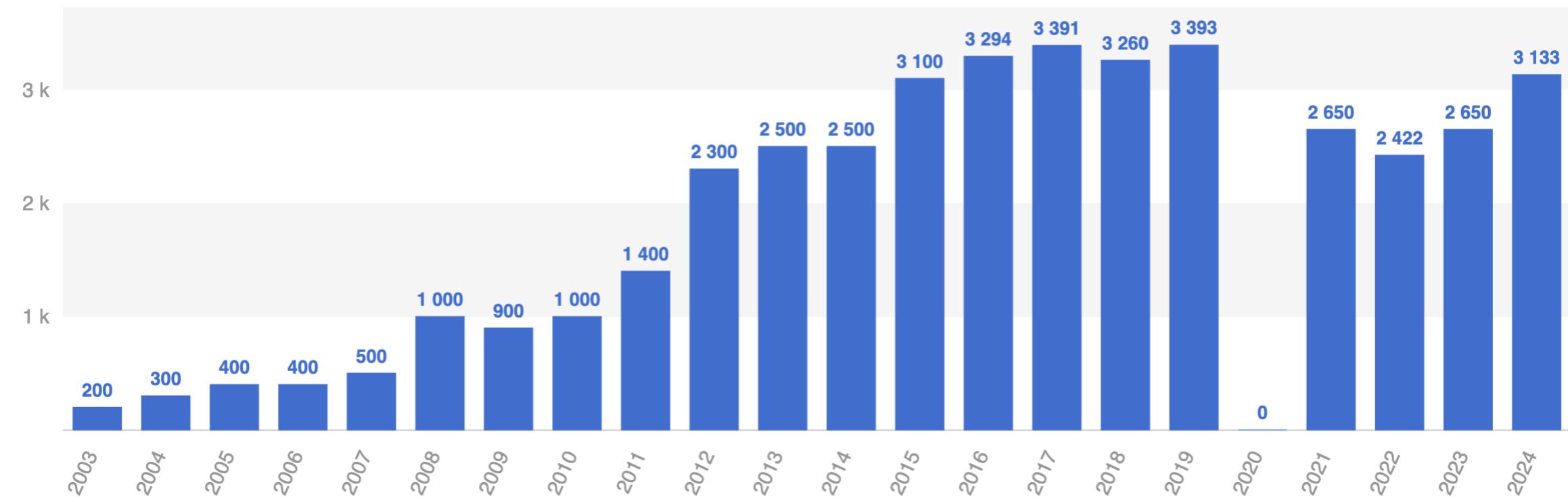
Don't share numbers. Share a story.

(C) Storytelling with Data, por Cole Nussbaumer Knaflic.

Vizzu: A Data Storytelling library in JS & Python

Pycon Attendees

attendees



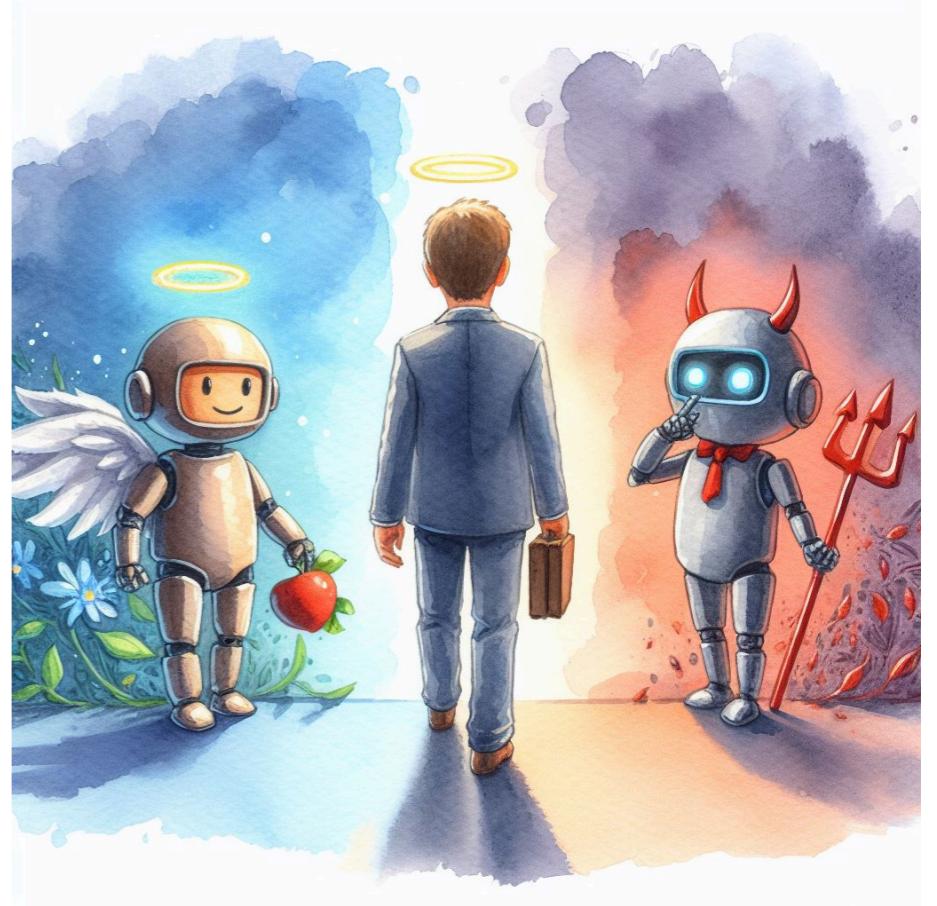


Data Storytelling

Tool #2: AI

Storytelling principle #3:
Your first draft is always going to be terrible.

- Use AI chatbots for:
 - Analogies and examples
 - Prompts to create better images!
- Don't search for images, create them!



The background of the slide features a vibrant, cartoonish cityscape. It includes several suspension bridges with purple and pink towers, a Ferris wheel with red and yellow gondolas, a green building with a red roof, and a cluster of modern skyscrapers in orange, green, and pink. The sky is filled with white and light blue clouds.

Data Storytelling

Tool #3: Presentation

Storytelling principle #4:
Show, don't tell.

Show, don't tell.

Guido's eyes lit up as the terminal finally executed without errors. A wide grin spread across his face. He jumped up from his chair, fists raised in triumph. "Yes!" he exclaimed, as he savored the moment of triumph with a deep, contented sigh.

Guido was happy because he solved the bug on his code.

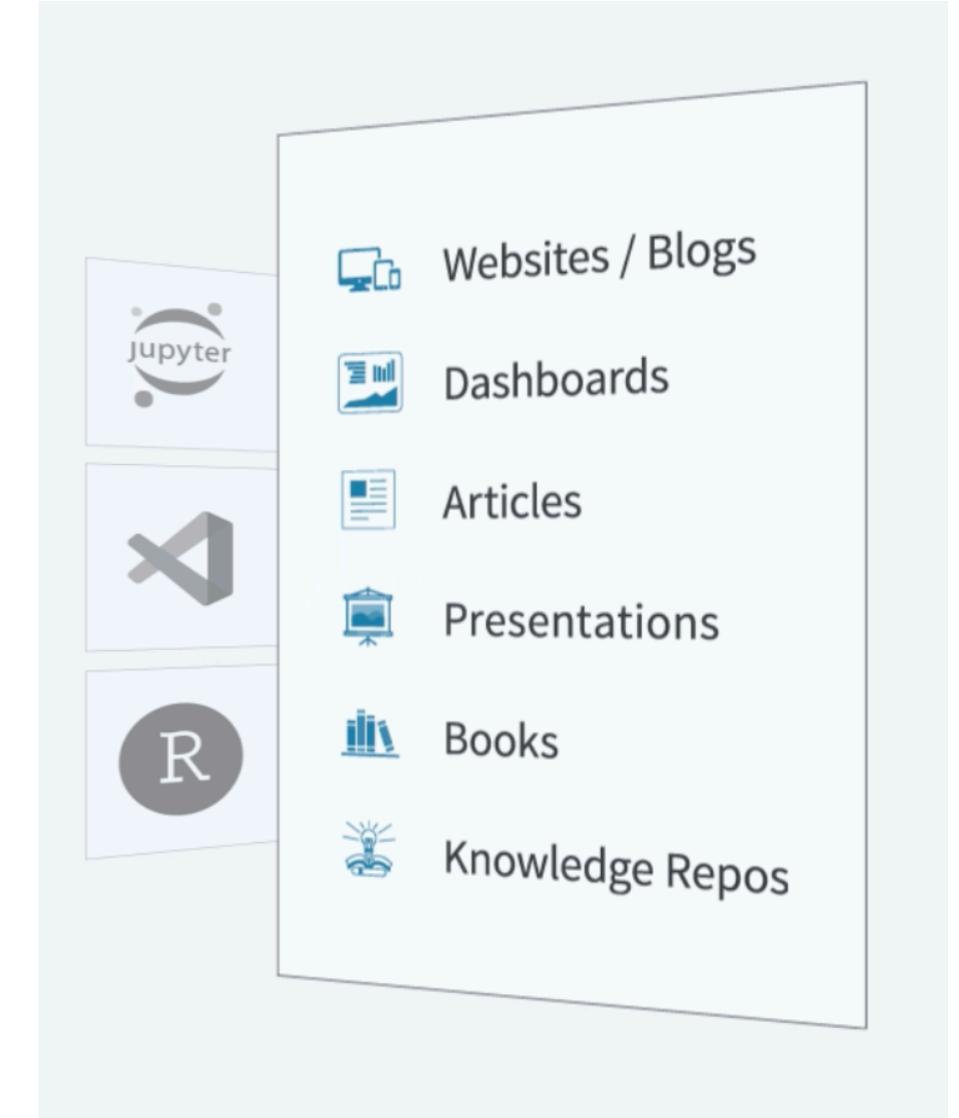
Presentation tools

- Classic: PowerPoint
- “Show don’t tell” tools: **quarto, jupyter + RISE, streamlit**
- Other: canvas, revealjs, prezi

quarto

An open-source scientific and technical publishing system.

Focus on scientific markdown, dynamic & interactive documents based on code (Python/R/Julia).



<https://quarto.org/>

Code: example.qmd

Slides: example.html

```
---
```

```
title: "Habits"
author: "John Doe"
format:
  revealjs:
    transition: fade
    theme: black
    toc: true
    center: true
---
```

```
## Getting up
```

- Turn off alarm
- Get out of bed

Jupyter + RISE

Jupyter extension to
display notebooks as
revealjs slides.

RISE

5.7.2.dev2

Jupyter slideshow extension



Navigation

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RISE

Reveal.js - Jupyter/IPython Slideshow Extension

Disclaimer

Please be aware that the extension built from this repo **is not compatible with JupyterLab and must be used with the classic notebook** (i.e. notebook <= 6).

JupyterLab and Notebook 7 users are encouraged to use the RISE JupyterLab extension instead:

`pip install jupyterlab-rise`

see also the github repo here <https://github.com/jupyterlab-contrib/rise>

What is RISE?

As you know... we love **Jupyter** and we like **reveal.js** too.

With RISE, a Jupyter notebook extension, you can instantly turn your jupyter notebook into a live *reveal.js*-based presentation.

<https://rise.readthedocs.io/>

Jupyter + RISE

The screenshot shows a Jupyter Notebook interface with the RISE theme applied. The top navigation bar includes 'File', 'Edit', 'View', 'Insert', 'Cell', 'Kernel', and 'Help' menus, along with a 'Logout' button. Below the menu bar is a toolbar with icons for file operations like 'New', 'Open', 'Save', 'Run', 'Kernel', and 'Help'. A status bar at the bottom indicates 'Untitled' and 'Python 3 | O'.

The main content area displays a presentation slide titled 'Welcome to the Binder-RISE demo'. It includes a note: 'Press space to move to the next sub-slide...' and a sub-slide titled 'Press it again to be taken to a code cell'. This sub-slide contains the text: 'You'll be able to click and run the code cell, live in the presentation!' and a code cell (In [1]) with the following Python code:

```
# Here are our imports (press shift+enter)
import numpy as np
import matplotlib.pyplot as plt

import matplotlib as mpl
mpl.rcParams['figure.figsize'] = (10, 5)
```

Below this is another sub-slide titled 'Now we'll generate some data and make a plot! Run the cell below...' and a code cell (In [2]) with the following Python code:

```
data = np.random.randn(5, 100)
sizes = np.abs(data[1])
fig, ax = plt.subplots()
ax.scatter(*data, s=sizes * 100, c=mapplotlib.cm.viridis, vmin=-1, vmax=1)
ax.set_title('Now, each plot, no scatter, much viridis.')
ax.set_xscale('off')
```

Streamlit

All python and as interactive as you can to
code it...



<https://streamlit.io/>

Streamlit

The screenshot shows a presentation slide from PyCon Chile 2021. The title of the slide is "Algunos widgets de Streamlit". The slide content displays various Streamlit widgets arranged in a grid, set against a background of colorful balloons.

The widgets shown include:

- Mi botón
- Un Checkbox
- Input de número
- Input de texto
- Python Chile #1
- Slider numérico
- Radio
- Completado
- Descargar archivo
- Imagen
- Selección de color
- Completo
- Seleccionar fecha
- Seleccionar hora
- Mensaje de error
- Mensaje de warning
- Mensaje informativo
- Mensaje de éxito
- Mensaje dinámico
- Mensaje de excepción
- ¡Bravo!
- Progreso

A video feed of a speaker, sebastiandres, is visible on the left side of the slide. The PyCon Chile 2021 logo is in the top left corner, and a Python logo is in the bottom left corner.

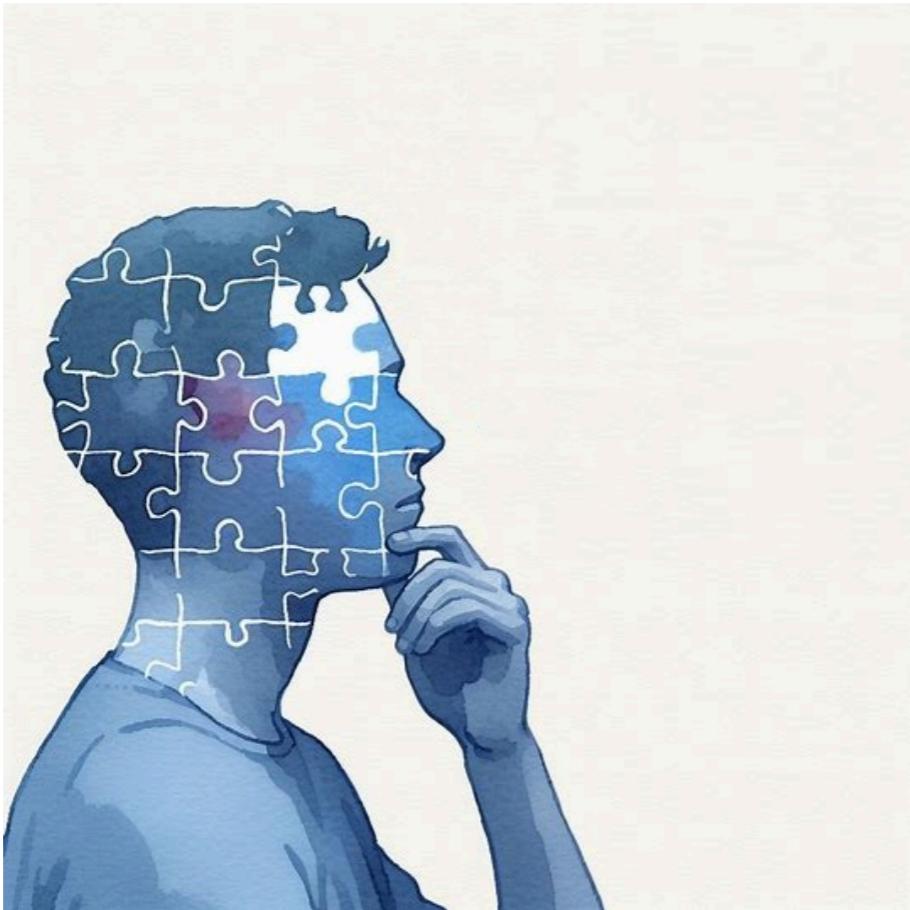
A decision flow

- PowerPoint: Single use no-code presentation
- Quarto: Talks from related documents (books, articles)
- Jupyter + RISE: Workshops or classes. Executing code is important
- Streamlit: Customized/experimental presentations

End



Two stories



Data Storytelling for me

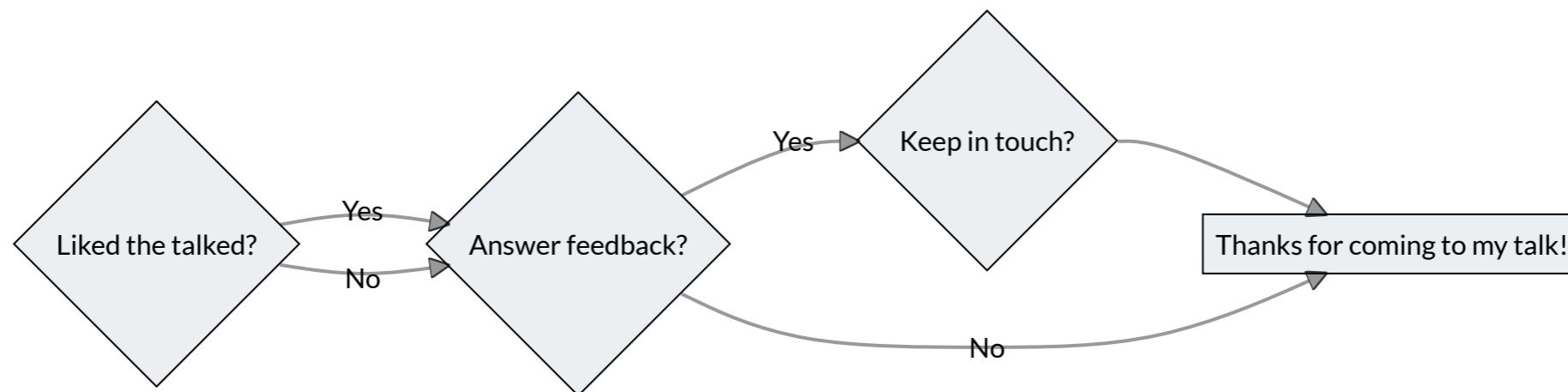


Data Storytelling for you?

I believe that...

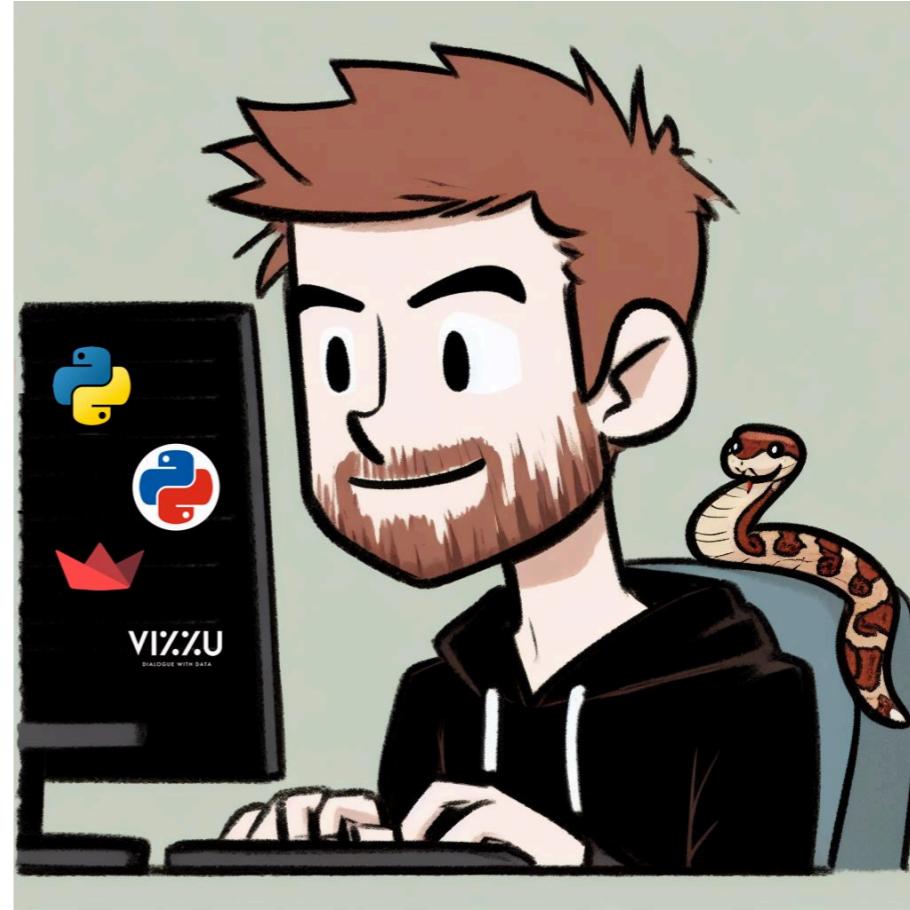
- Data Storytelling is a crucial skill
- YOU can learn Data Storytelling skills and tools

Feedback





<https://tinyurl.com/ycxj9ep5>



Thank you!

sebastiandres | <https://sebastiandres.xyz>

Recommended reading

Storytelling

- Storyworthy, Matthew Dicks
- Made to Stick, Chip Heath and Dan Heath



<https://tinyurl.com/ycxj9ep5>

Recommended reading

Data Storytelling

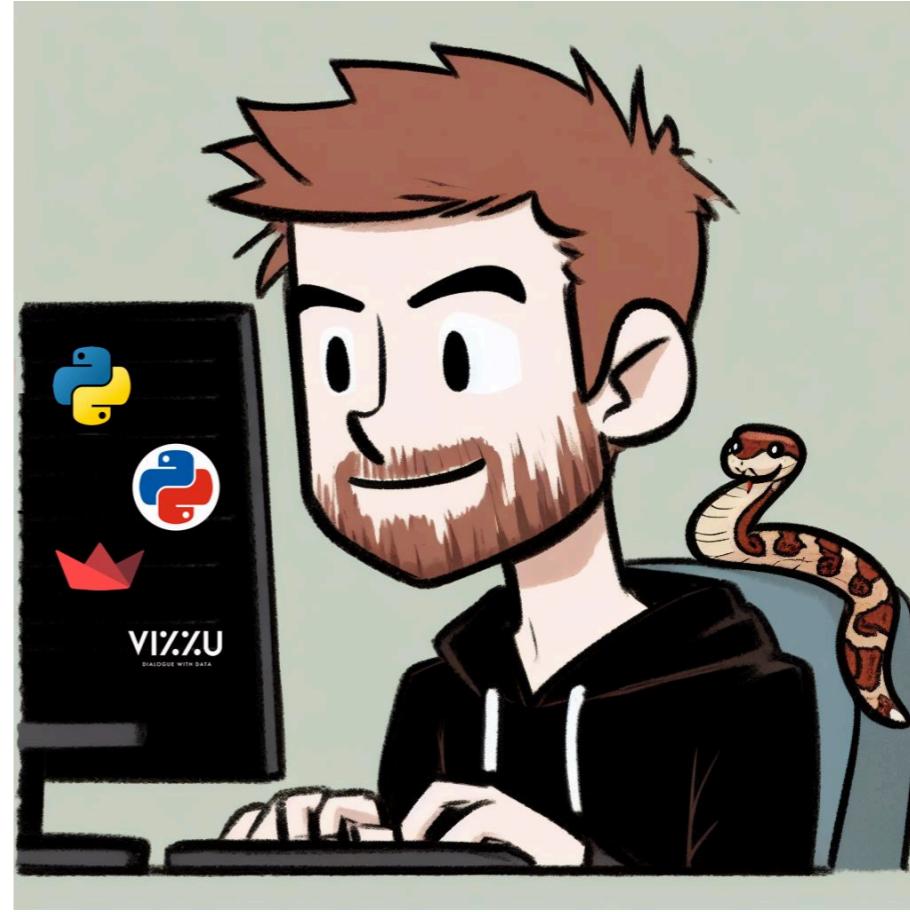
- Storytelling with Data, Cole Nussbaumer Knaflc
- Data Visualization & Storytelling, Jose Berengueres and Marybeth Sandell



<https://tinyurl.com/ycxj9ep5>



<https://tinyurl.com/ycxj9ep5>



¡Gracias!

sebastiandres | <https://sebastiandres.xyz>

