



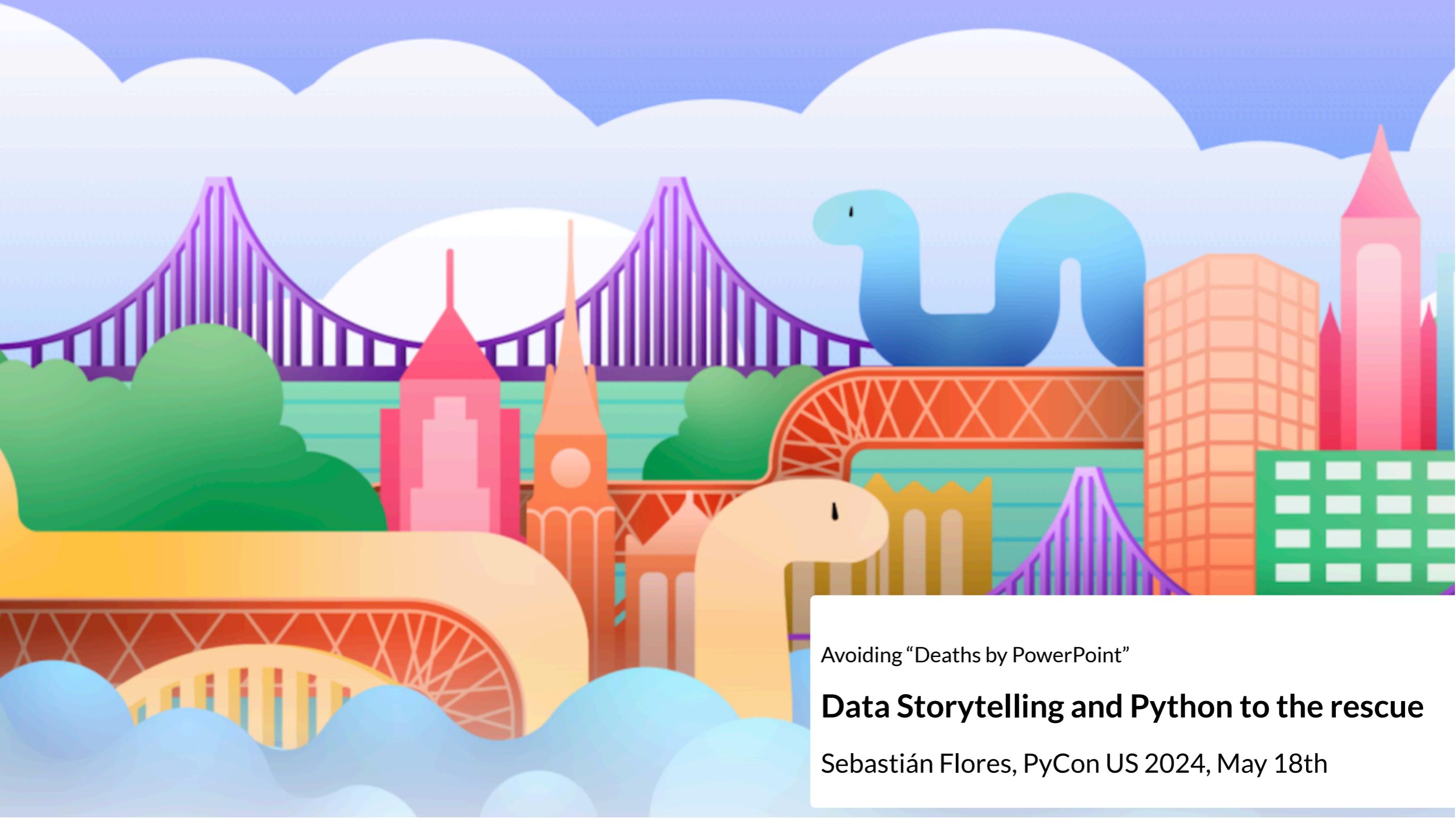
Death by PowerPoint (noun):

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)

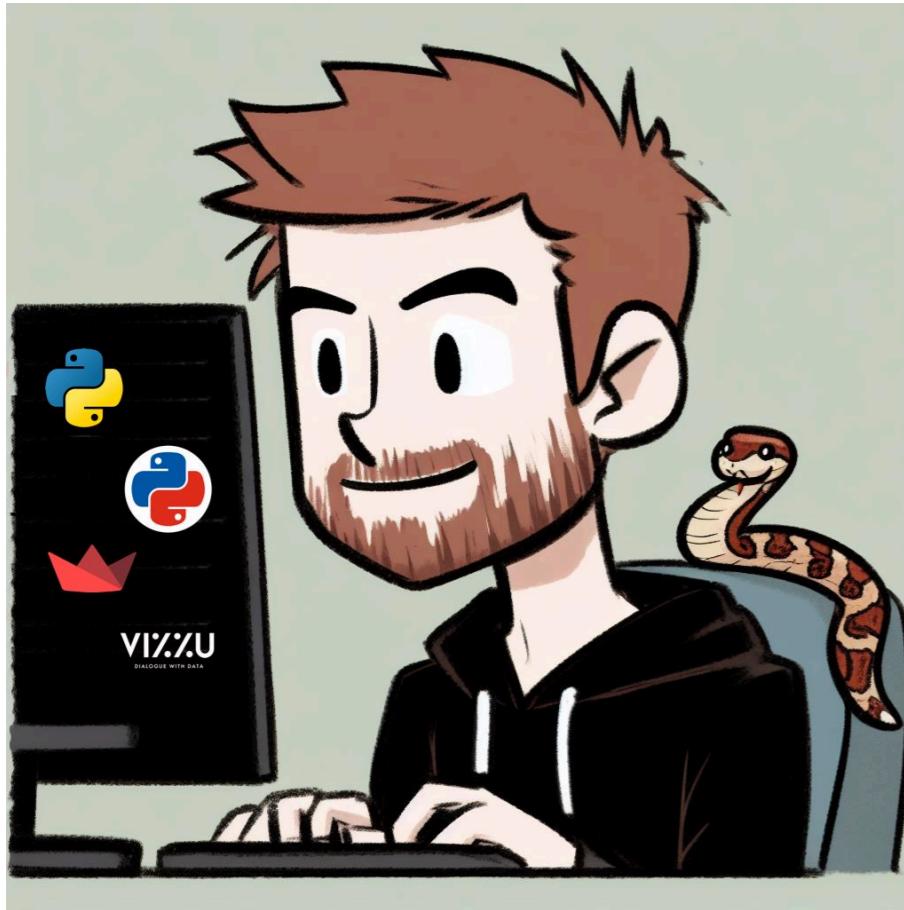


Avoiding “Deaths by PowerPoint”

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

The background features a vibrant, cartoonish cityscape. It includes a suspension bridge with pink towers, several modern buildings with orange and green facades, a red church-like structure with a tall spire, and a large blue circle containing a white 'i'. In the foreground, there's a green speech bubble containing the text 'Data Storytelling' and another green speech bubble below it containing 'Why Data Storytelling?'

Data Storytelling

Why Data Storytelling?

¿Storytelling?



Stories are
the first human technology

Ohh, those hackable brains

Peak-End Rule

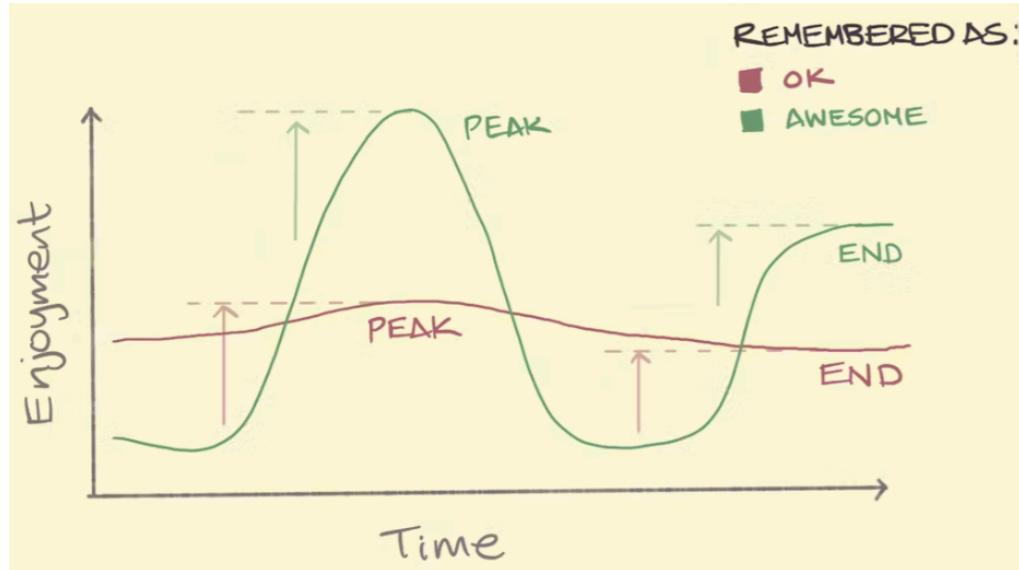
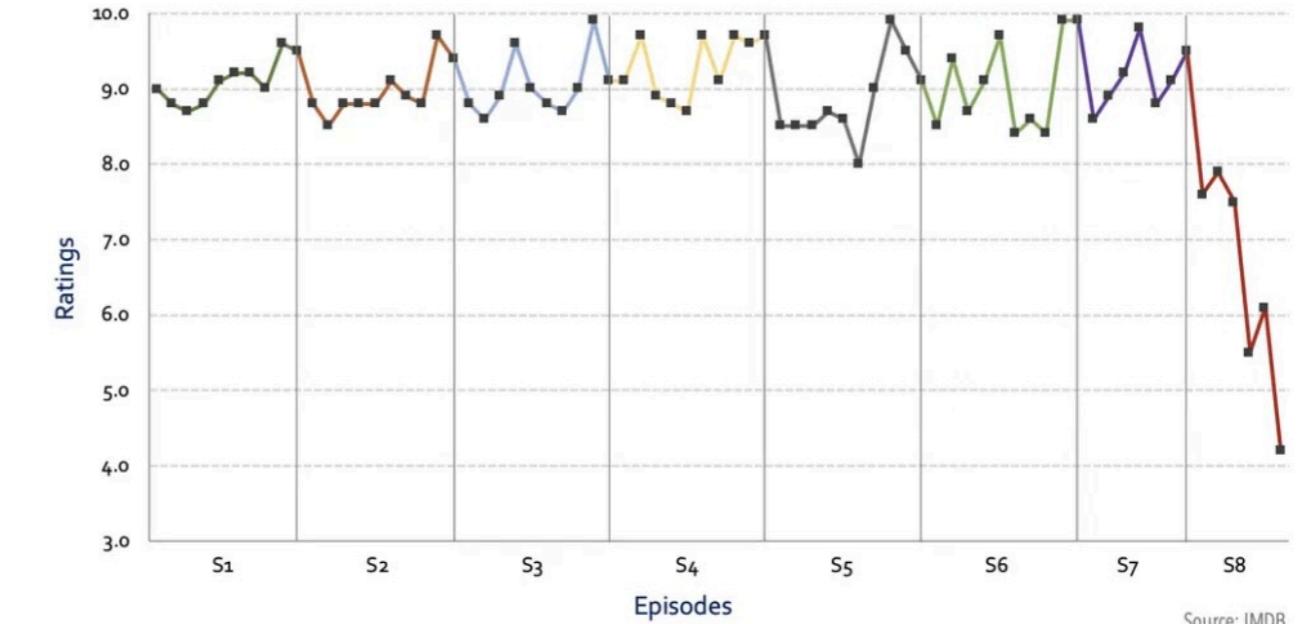


Image by sketplanation



Game of Thrones rating, by Kelvin Neo

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

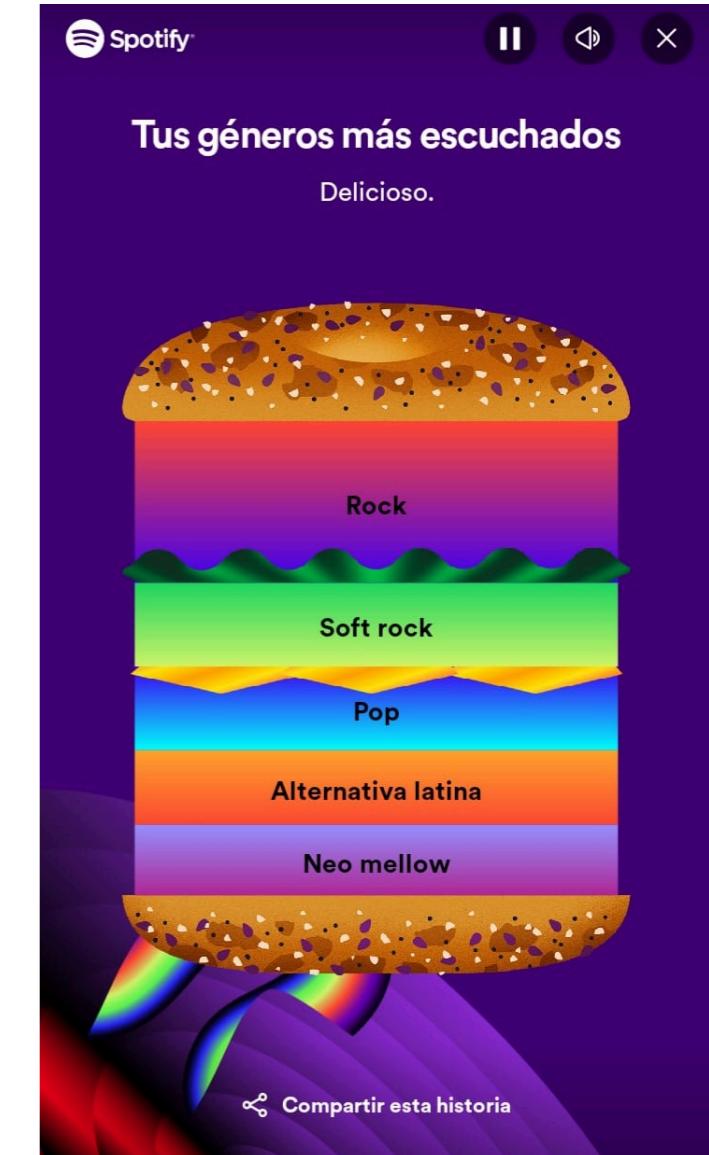


Emotions create actions

The best example



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

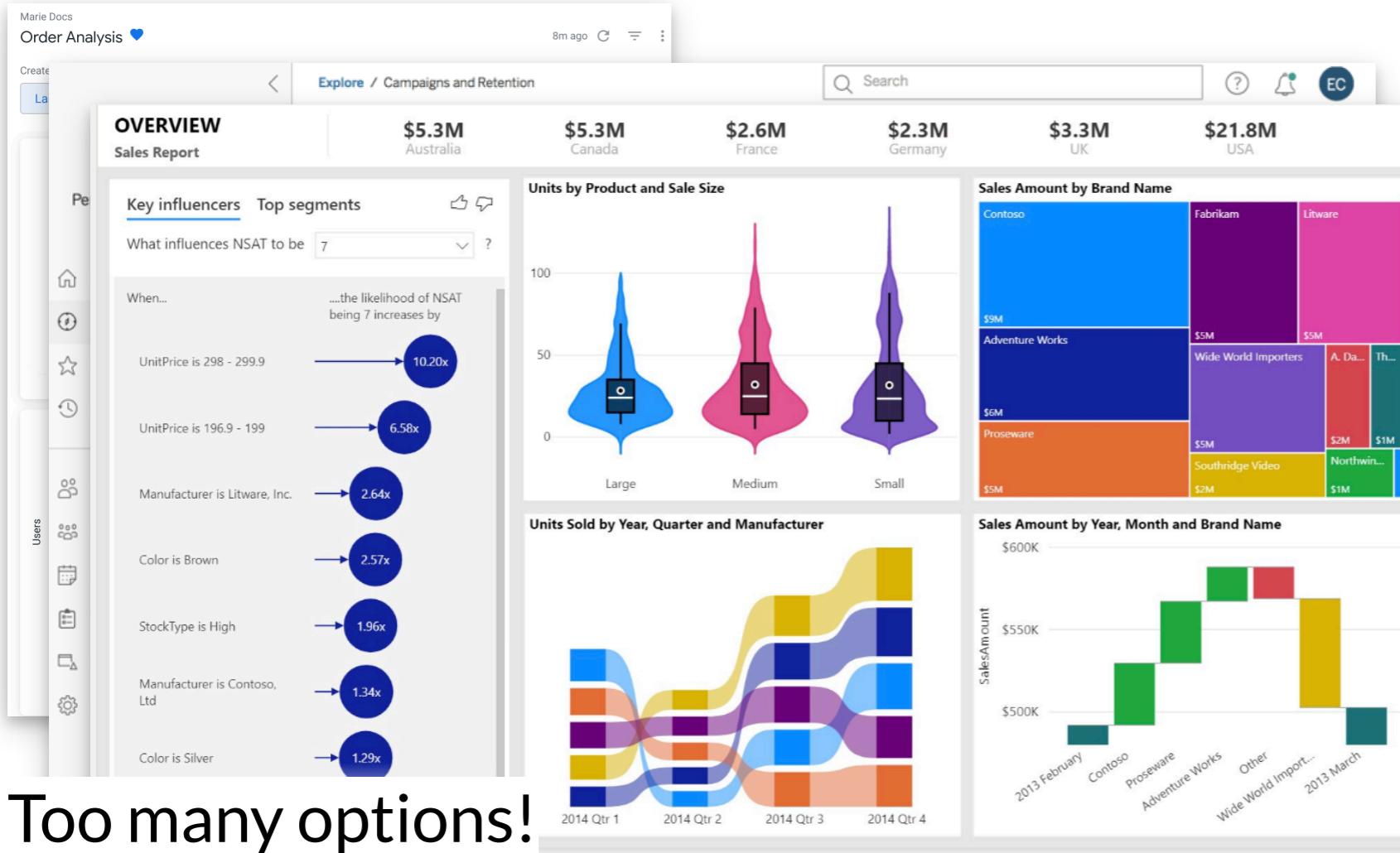


The background of the slide features a vibrant, cartoonish cityscape. It includes several suspension bridges in shades of pink and purple, a Ferris wheel, a green building with a red roof, and a cluster of modern skyscrapers. The sky is filled with fluffy white clouds.

Data Storytelling

Tool #1: Visualization

Data Exploratory Viz



User cannot be responsible of finding your insights.

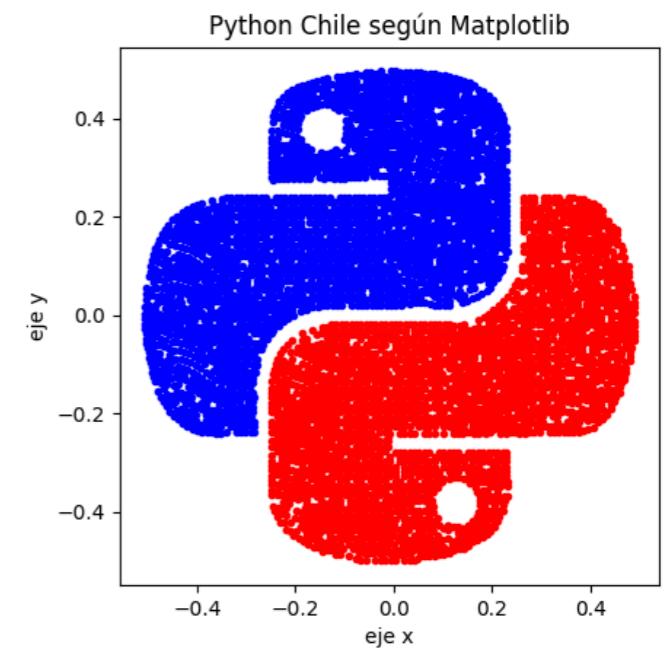
Storytelling principle #2:

Details are important,
but not all details are important.

Data Explanatory Viz

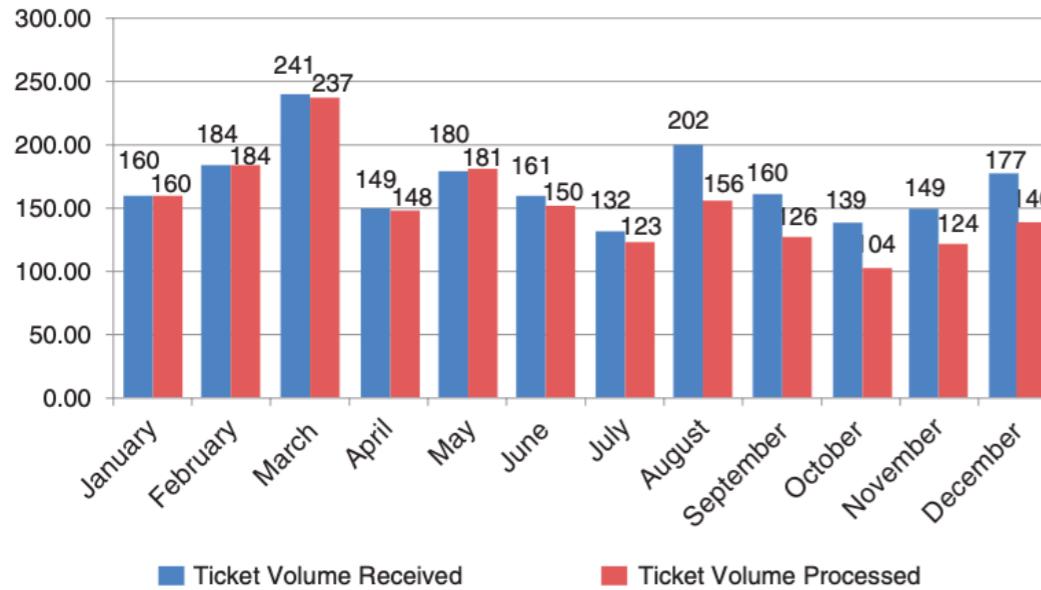
So many good python libraries!

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



Pick one and master it

Ticket Trend



Ticket volume over time



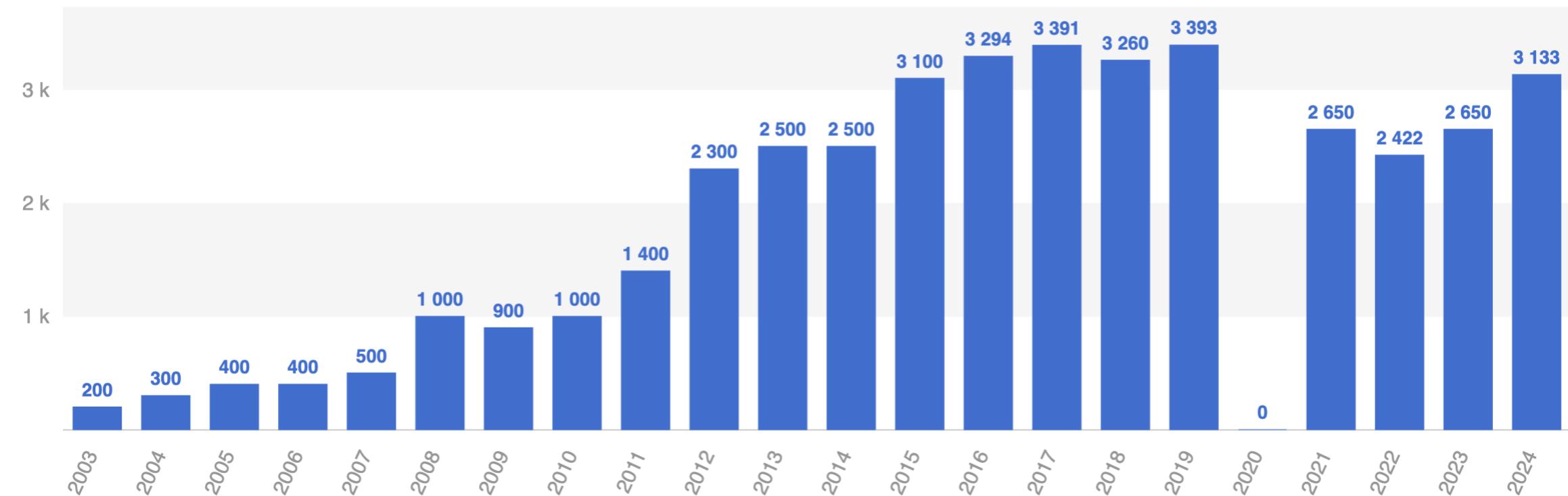
Don't share numbers. Share a story.

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

Vizzu: A Data Storytelling library in JS & Python

Pycon Attendees

attendees



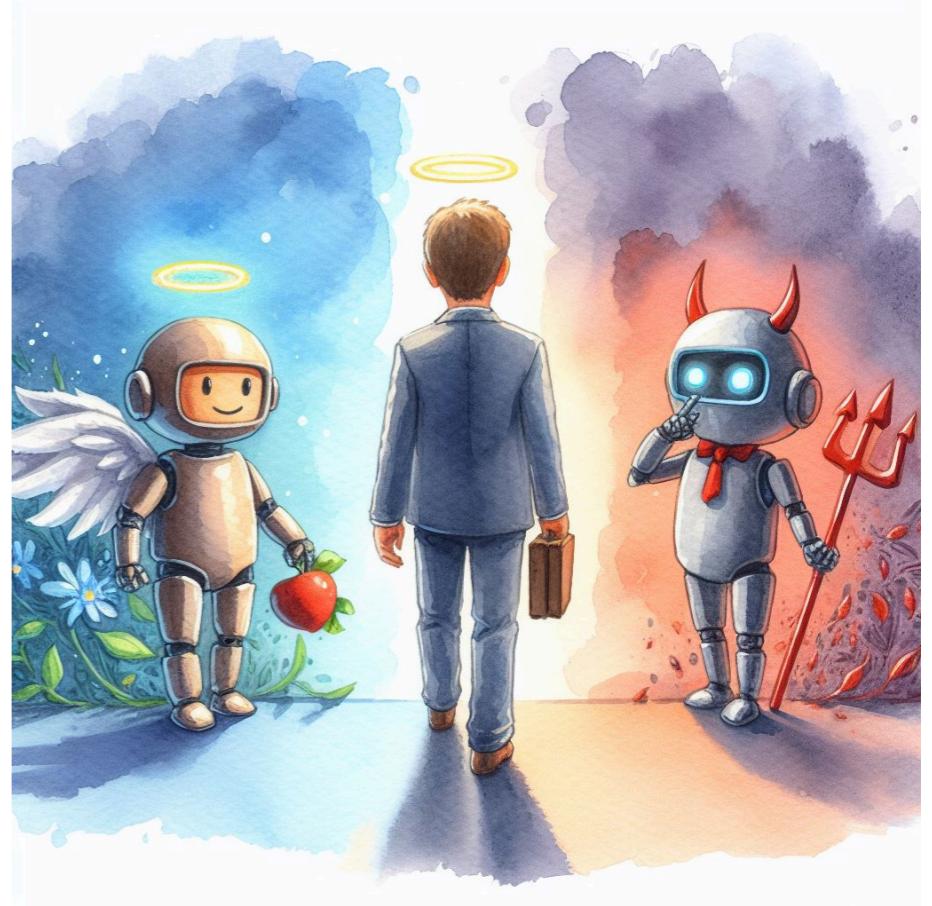


Data Storytelling

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!





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.

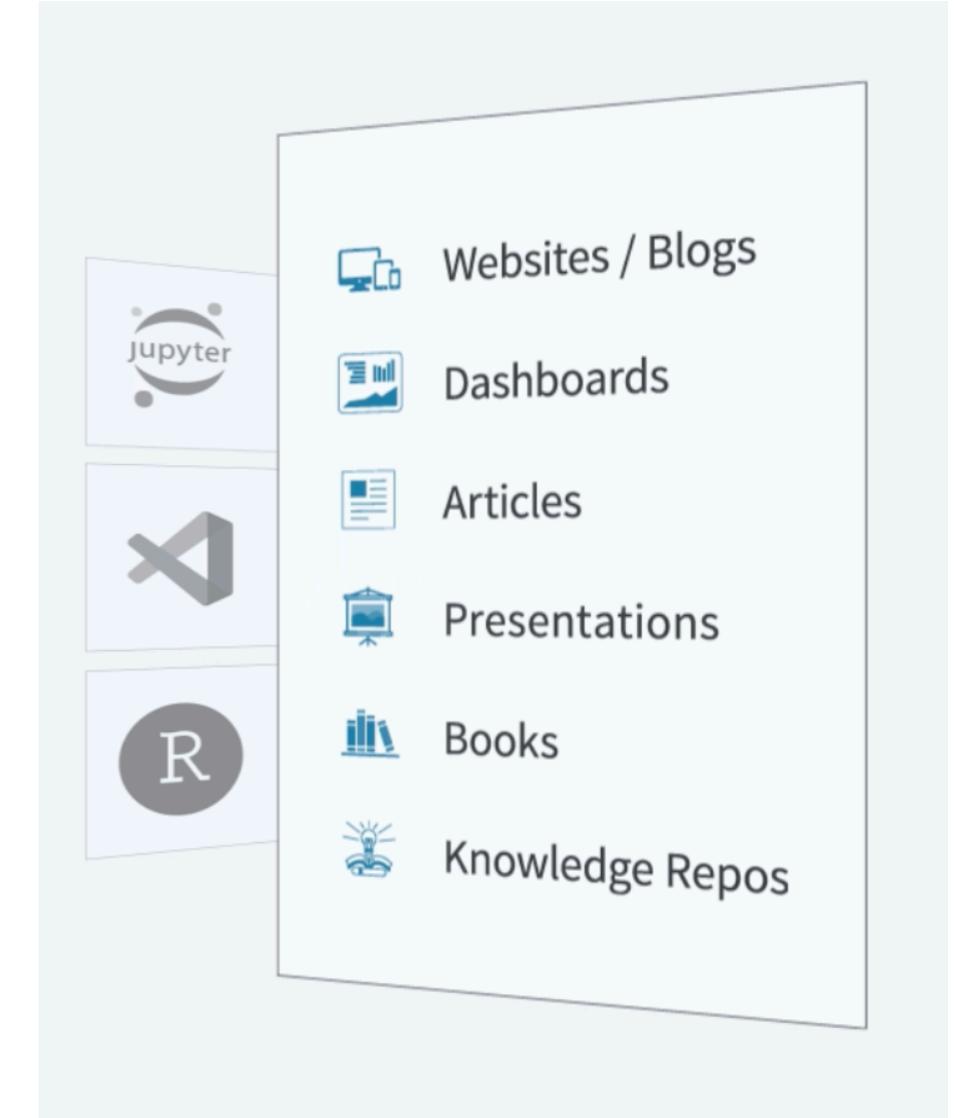
Presentation tools

- 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 (C)'.

The main content area displays a presentation slide titled 'Welcome to the Binder-RISE demo'. It contains the text 'Press it again to be taken to a code cell' and 'You'll be able to click and run the code cell, live in the presentation!'. Below this is a code cell labeled 'In []' containing 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)
```

Following this is another slide titled 'Now we'll generate some data and make a plot! Run the cell below...' with a corresponding code cell labeled 'In []':

```
data = np.random.randn(5, 100)
sizes = np.abs(data[1])
fig, ax = plt.subplots()
ax.scatter(*data, s=sizes * 100, c=smpcpl.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

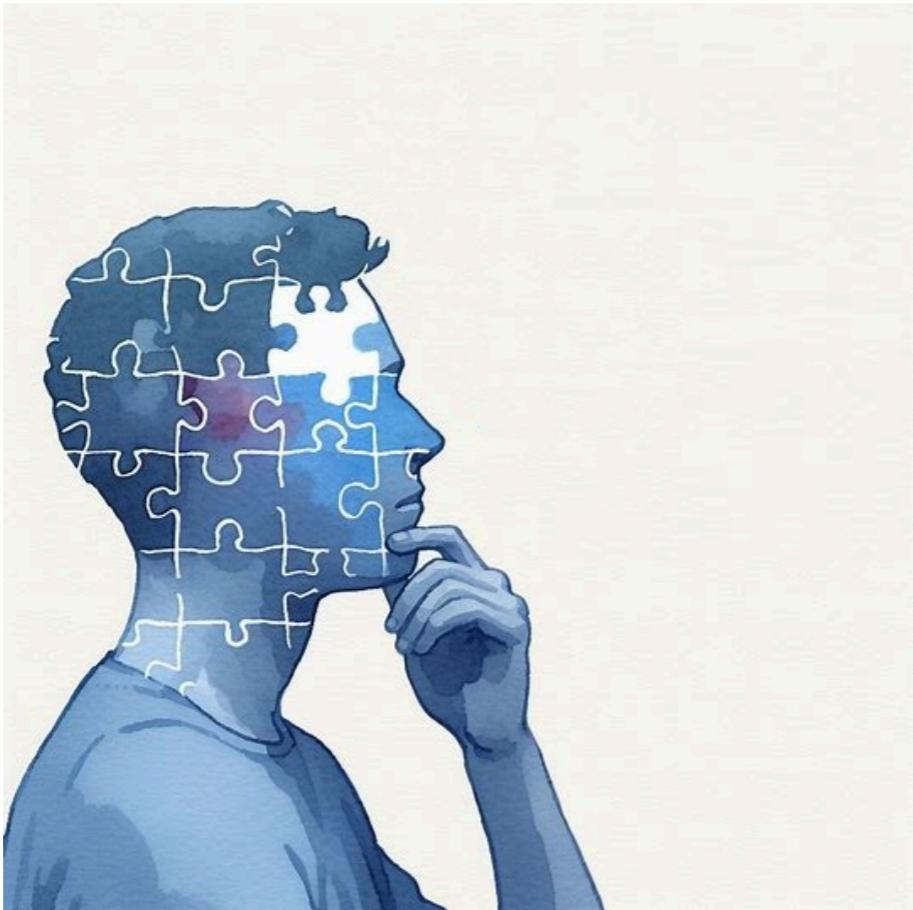
A video feed of a speaker, sebastiandres, is visible on the left side of the slide. The PyCon Chile 2021 logo is in the top left corner, and a Python logo is in the bottom left corner.

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

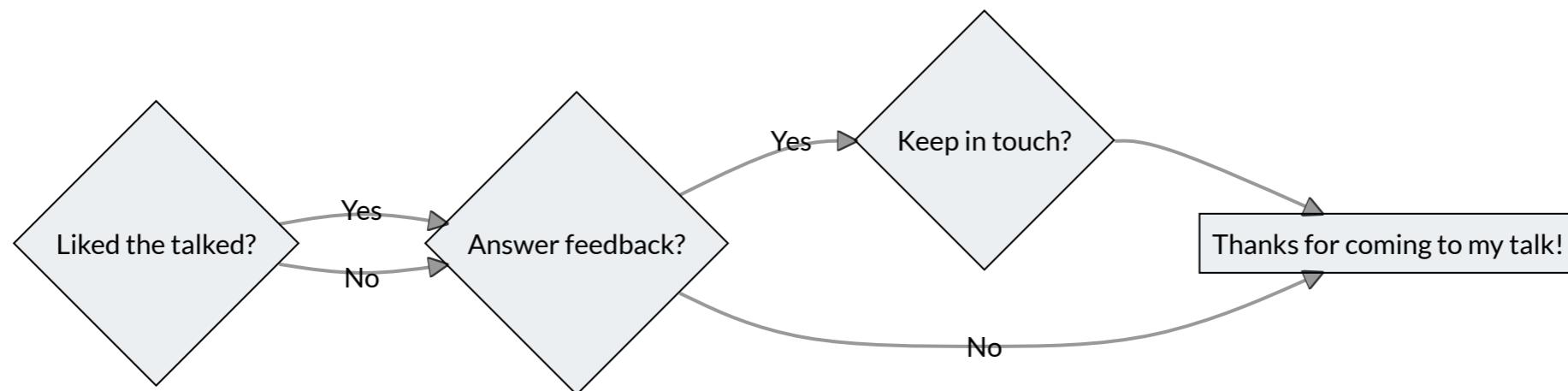


Data Storytelling for you?

I believe that...

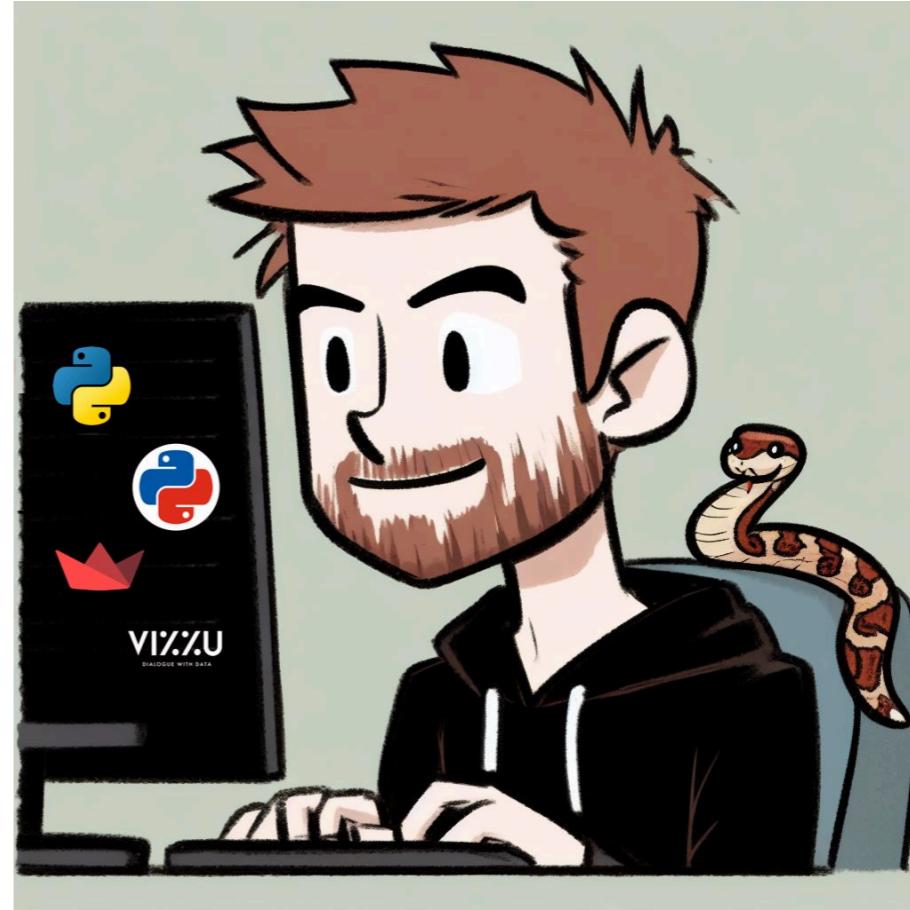
- Data Storytelling is a crucial skill
- YOU can learn Data Storytelling skills and tools

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

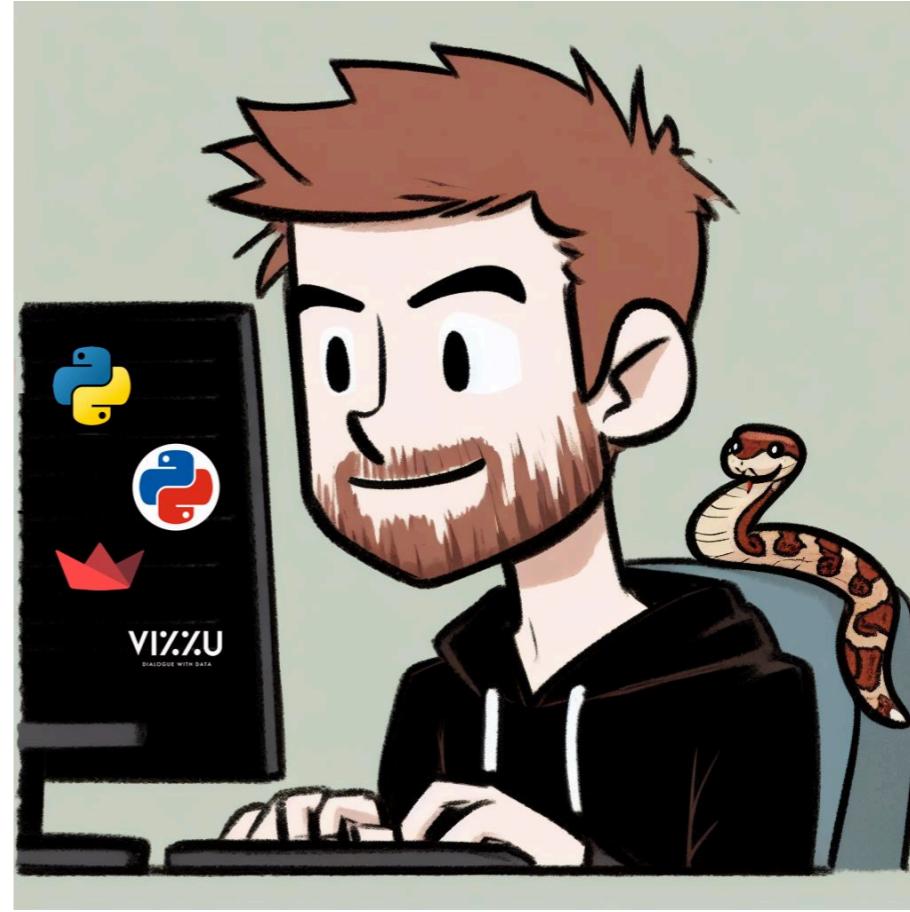
- Storytelling with Data, Cole Nussbaumer Knaflc
- Data Visualization & Storytelling, Jose Berengueres and Marybeth Sandell



<https://tinyurl.com/ycxj9ep5>



<https://tinyurl.com/ycxj9ep5>



¡Gracias!

sebastiandres | <https://sebastiandres.xyz>

