



Dataviz Universe

Joseph Barbier
Stage 2024
Master IREF - ERDS



Dataviz Universe en bref

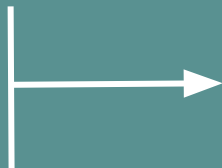
- 6 sites :
 - Python Graph Gallery
 - R Graph Gallery
 - React Graph Gallery
 - D3 Graph Gallery
 - From Data to Viz
 - Dataviz Inspiration
- +1 million de visiteurs par mois
- Plusieurs milliers d'articles
- +3000 commits Git
- Des dizaines de contributeurs



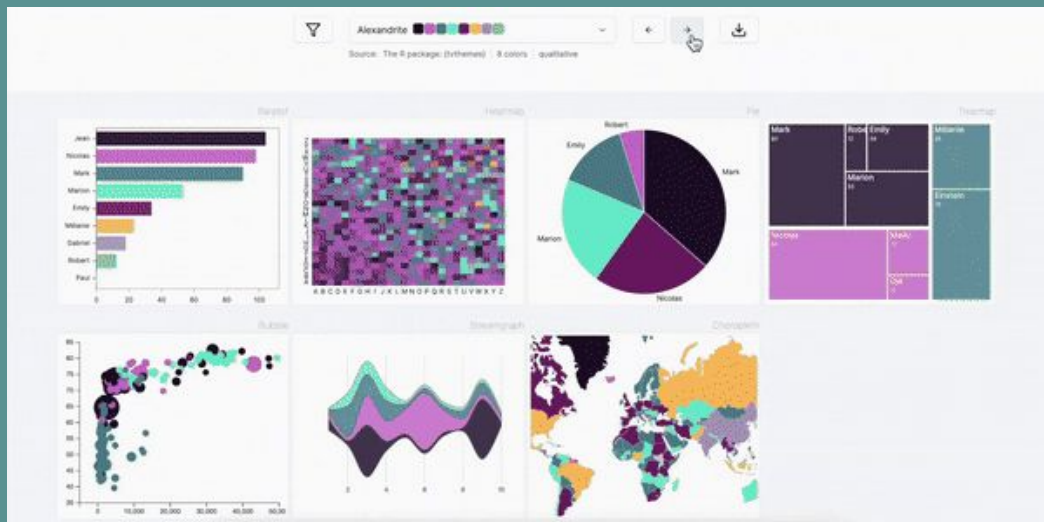


Dataviz Universe : objectifs

- Sites exhaustifs
- Dynamiques et interactifs
- UX



- Visibilité
- Traffic

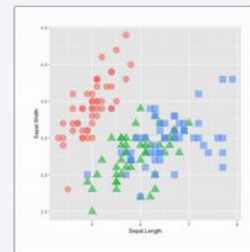


It is possible to customize any part of a `ggplot2` chart thanks to the `theme()` function. Fortunately, heaps of pre-built themes are available, allowing to get a good style with one more line of code only. Here is a glimpse of the available themes. [See code](#)

```
→ ggplot2
default theme_bw() theme_minimal()
theme_classic() theme_gray()

→ ggthemes
theme_excel() theme_economist()
theme_fivethirtyeight() theme_tufte()
theme_gdocs() theme_wsj()
theme_calc() theme_hc()

→ other
theme_article() theme_pubclean()
theme_bigstatsr() theme_ipsum()
```





Missions

- Amélioration des Python et R Graph Gallery

THE LARGEST COLLECTION OF R CHART EXAMPLES

The R Graph Gallery boasts the **most extensive compilation of R-generated graphs** on the web.

Featuring over **400 examples**, our collection is meticulously organized into nearly **50 chart types**, following the **data-to-viz** classification. Each example comes with reproducible code and a detailed explanation of its functionality.

We begin each chart type with a **foundational tutorial** that outlines its core structure and purpose. Once you've grasped the basics, our **step-by-step guides** offer insights into elementary customizations. This ensures that your charts not only visualize data effectively but also resonate with your unique requirements.

The biggest list of python chart examples

Within our collection, we cover **every chart type** imaginable to ensure we fulfill your data visualization needs. To streamline the process of finding your required chart, we meticulously **classified** all the examples under their respective chart types.

For each chart type, we kick off with a **foundational tutorial** that introduces its basic structure and utility. After mastering the basics, users can delve into our step-by-step guides on the most elementary **customizations**, ensuring your chart not only presents data but does so with an individual touch that caters to your specific requirements.

Contributors 3



JosephBARBIERDARNAL Joseph Bar...



nrode



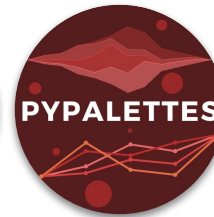
thomaslenormand thomas lenormand

Languages



- Package R (modélisation analyse de survie) pour le CNRS

- Outils open source Python





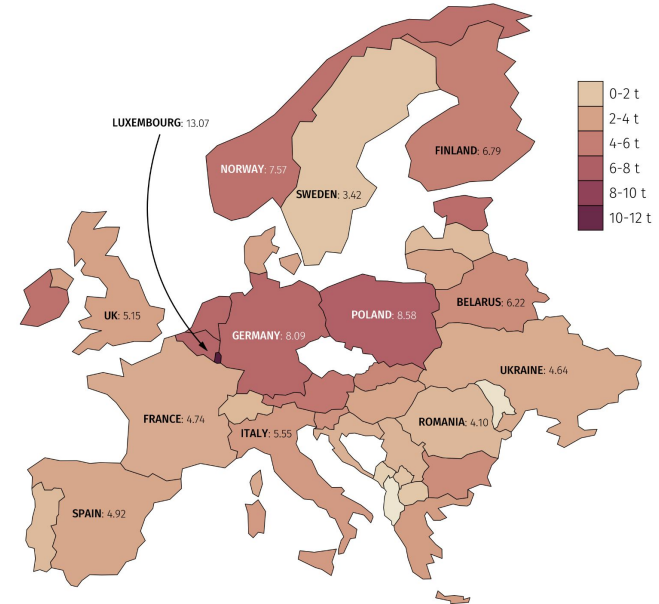
Résultats

L'île de France polluée t'elle vraiment plus ?

Consommation d'énergie et consommation d'énergie par habitant, de 2011 à 2021, par région (or Corse et territoires d'outre-mer)

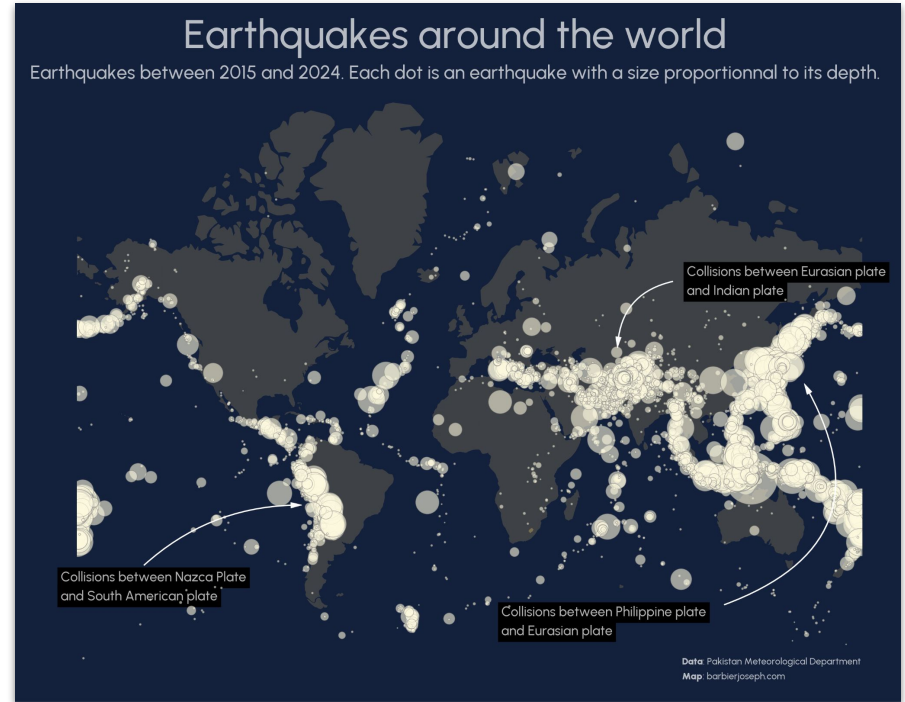
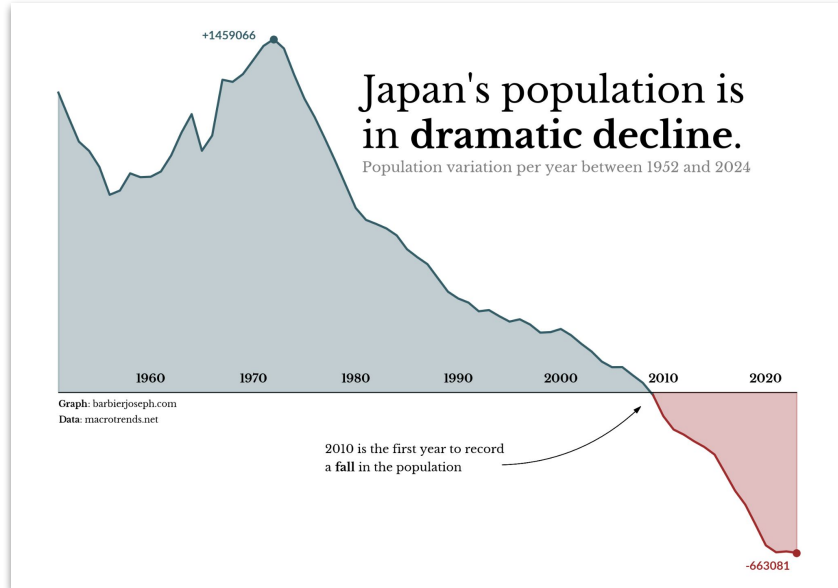


Design: Joseph Barbier | Données: data.gouv.fr
Consommation de gaz et d'électricité en France, mesuré en MWh. Les données sont agrégées par région et par année.
La population moyenne de 2008 et 2024 est utilisée pour normaliser la consommation d'énergie par habitant.





Résultats





Résultats

- **Package R “Lifelihood”** : fonctionnel mais améliorable
- **Python** et **R** Graph Gallery
 - +100 postes ajoutés
 - Dizaines de bugs corrigés
 - Amélioration générale
- Outils Python open source
 - **PyPalettes** : gestion des couleurs
 - **DrawArrow** : création de flèches
 - **PyFonts** : gestion des polices



Projet professionnel

- Collaboration avec Yan
- Amélioration du package R Lifelihood
- Open source
- Autres projets liés à la science des données





Conclusion

- Ecosystème visualisation Python
- Programmation
 - Développement de librairies/packages
 - Expérience développeur
 - Test
- Visualisation
 - Matplotlib
 - TidyVerse
- Une grande motivation à continuer dans cette direction
- Envie de créer des projets connexes

