

DATAVIZ RESSOURCES

Université d'été 2023 - 29 Août 2023

Mathieu Rajerison - CEREMA

A photograph of a waterfall cascading down a rocky cliffside. The water flows from a small pool at the top, down a rocky ledge, and into a larger pool below. The surrounding area is covered in green moss and some yellow autumn leaves. The word "GUIDES" is overlaid in large white capital letters.

GUIDES

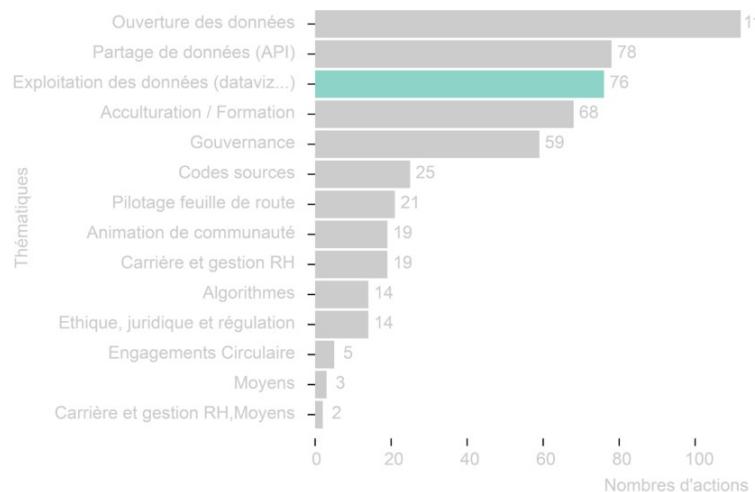
GUIDE TOULOUSE

Nicole Oresme (1370)

Recommandation 4

Facilitez la lecture des différents éléments pour votre auditoire :

- Lorsque le label de vos barres est très large, privilégez les diagrammes à barres horizontales.
- Plutôt qu'une échelle sur un axe, affichez les valeurs à l'extrémité des barres ou mettez les deux.
- Classez les valeurs des barres par ordre croissant ou décroissant ou par ordre alphabétique des noms des catégories suivant l'objectif du graphique.



EBOOK GRATUIT

Data Visualization

☰ Q A

Welcome

Preface

1 Introduction

Part I: From data to visualization

2 Visualizing data: Mapping data ont...

3 Coordinate systems and axes

4 Color scales

5 Directory of visualizations

6 Visualizing amounts

7 Visualizing distributions: Histogram...

8 Visualizing distributions: Empirical ...

9 Visualizing many distributions at on...

10 Visualizing proportions

11 Visualizing nested proportions

12 Visualizing associations among t...

13 Visualizing time series and other f...



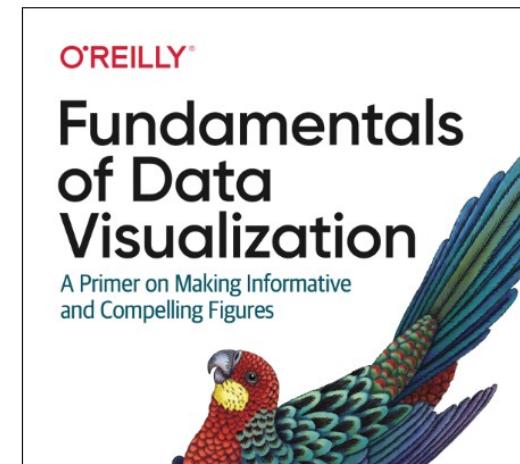
Fundamentals of Data Visualization

Claus O. Wilke

Welcome

This is the website for the book “Fundamentals of Data Visualization,” published by O'Reilly Media, Inc. The website contains the complete author manuscript before final copy-editing and other quality control. If you would like to order an official hardcopy or ebook, you can do so at various resellers, including [Amazon](#), [Barnes and Noble](#), [Google Play](#), or [Powells](#).

The book is meant as a guide to making visualizations that accurately reflect the data, tell a story, and look professional. It has grown out of my experience of working with students



<https://clauswilke.com/dataviz/>

I WANT HUE (SC. PO PARIS)

I want hue Tutorials **Examples** Theory Experiment Old version ▾ GitHub Issues npm + Médialab Tools

 i want hue

Colors for data scientists. Generate and refine palettes of optimally distinct colors.

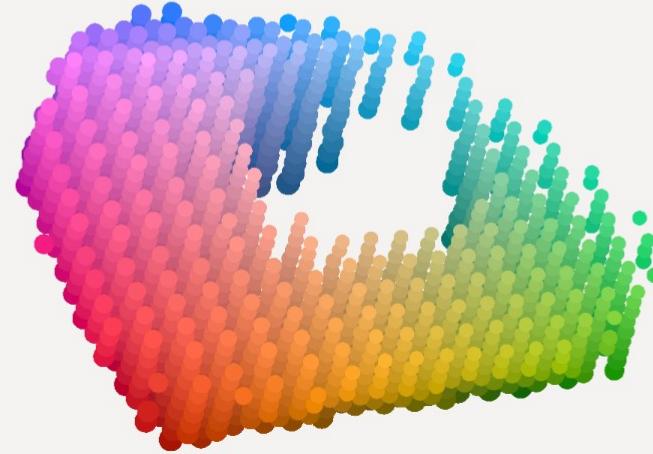
Color space

Default preset

H 0 C 30 L 35

360 80 80

Improve for the colorblind (slow)
 Dark background



Palette

5 colors soft (k-Means)


Make a palette

<https://medialab.github.io/iwanthue/>

A photograph of a waterfall cascading down a rocky cliffside. The water flows from a small pool at the top through several ledges, creating a series of falls. The surrounding area is covered in moss, lichen, and various autumn-colored leaves (yellow, orange, red). Bare tree branches are visible on the left side.

DATA TO VIZ

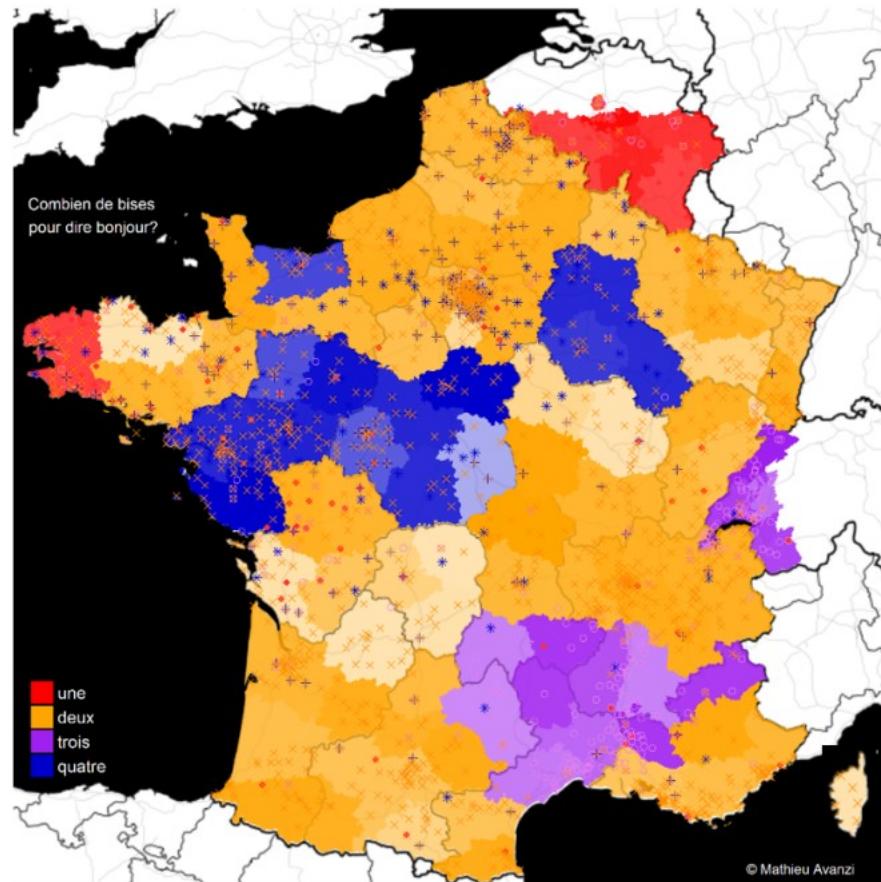
Variables numériques et **continues**

Variables de **catégories**

Variables de **temps**

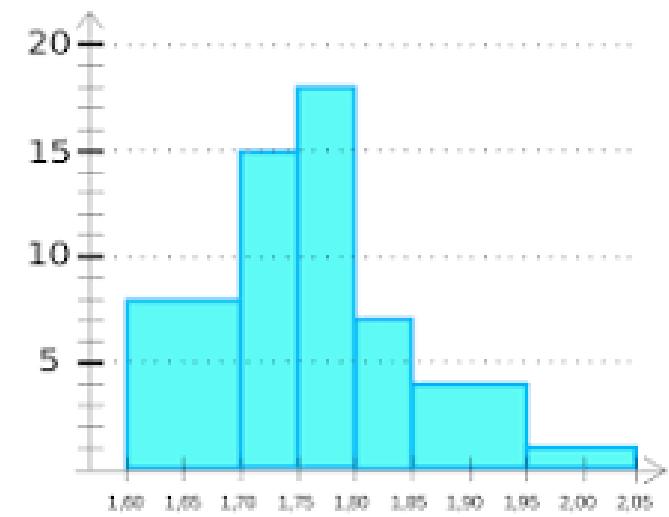
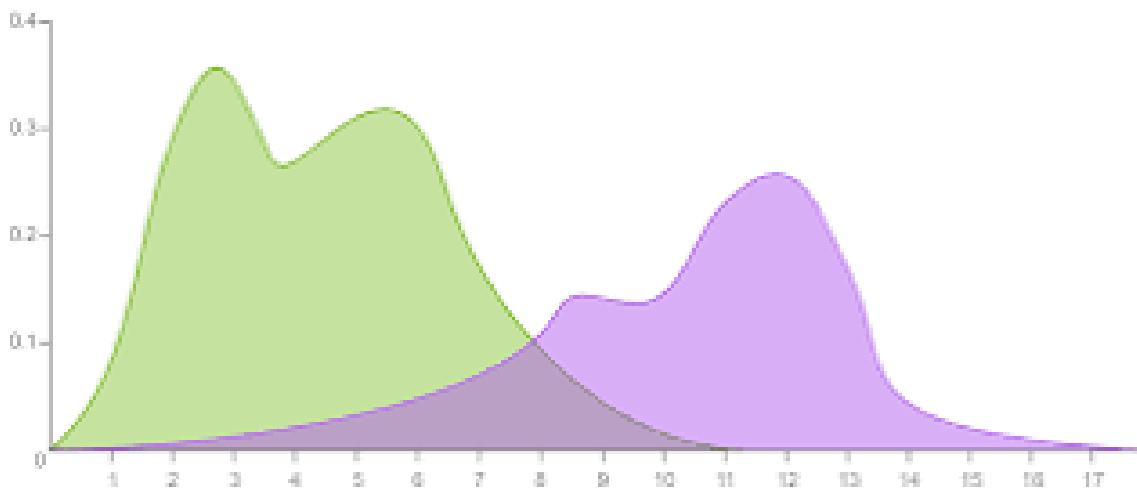
Position dans l'espace

Position + Catégorie

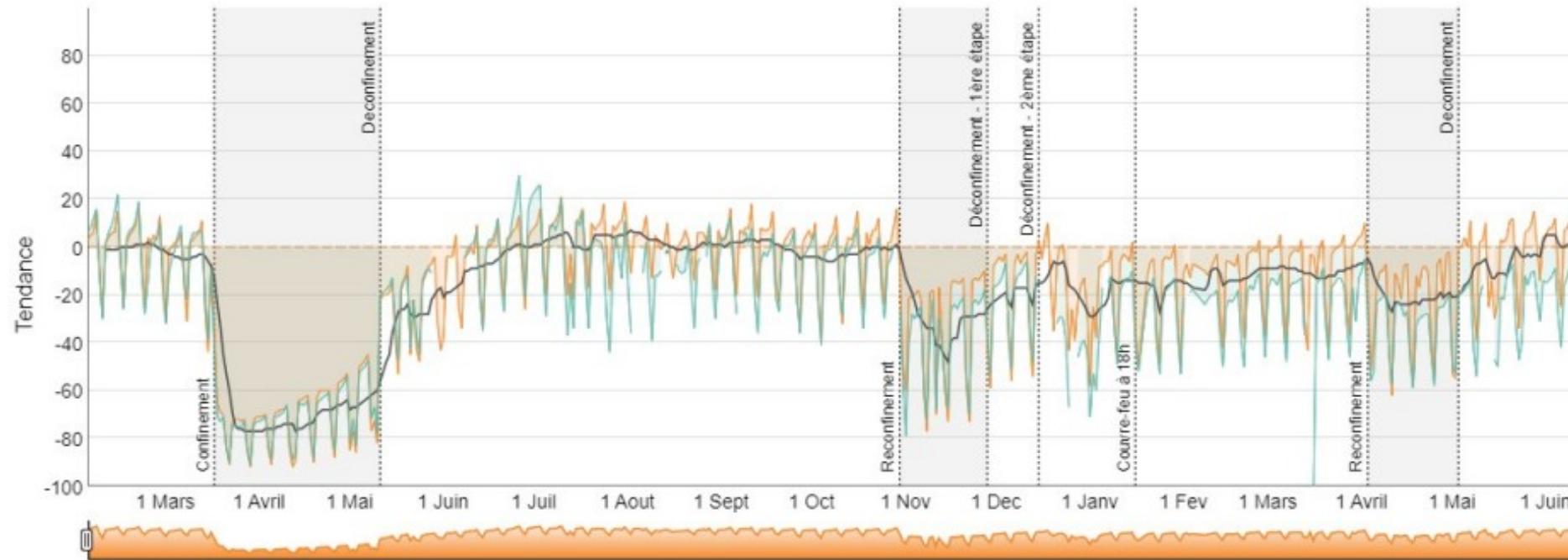


<https://francaisdenosregions.com/2016/12/21/la-carte-des-bises/>

Occurrences



Nombre + Temps



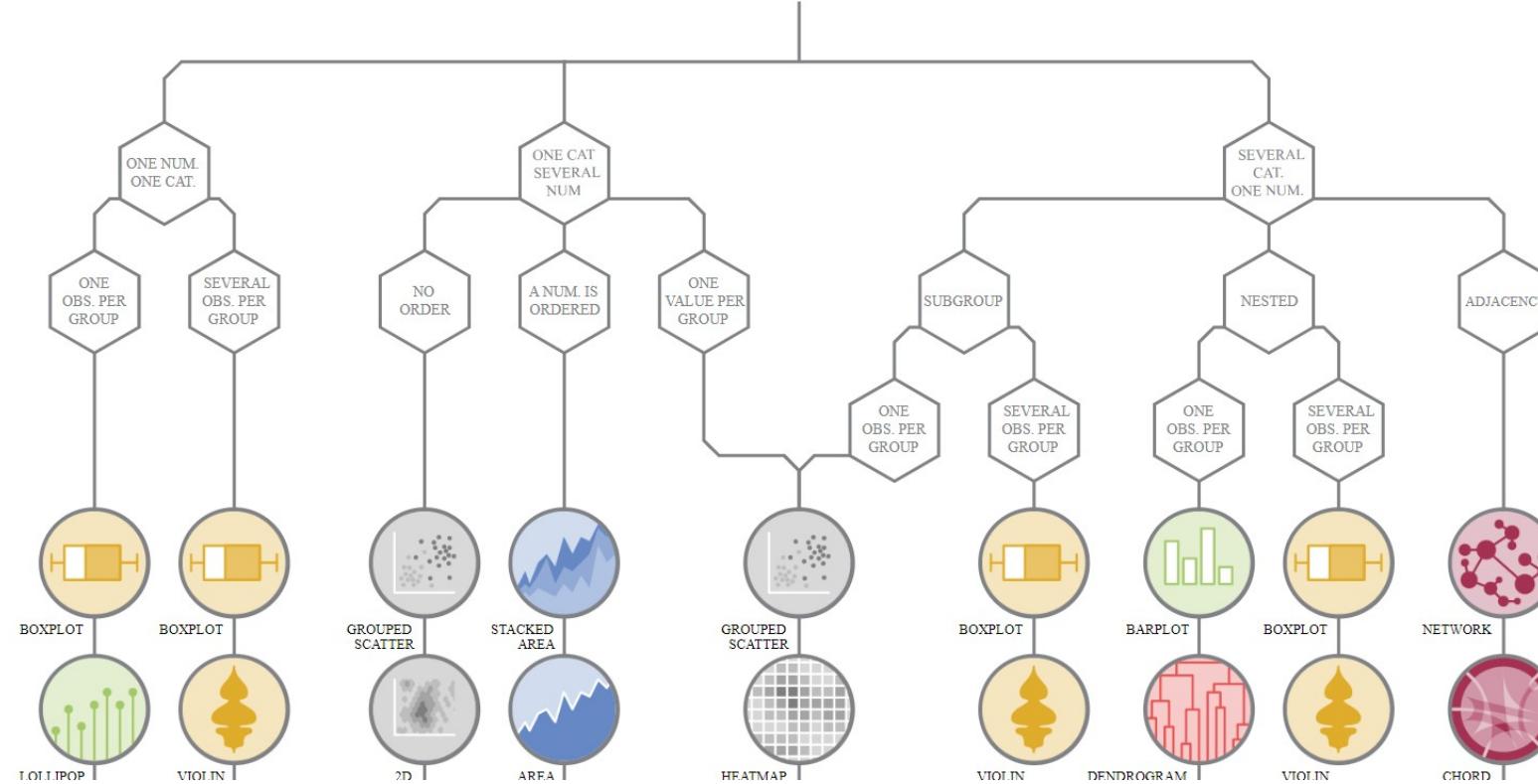
DATA TO VIZ

from Data to *Viz*

EXPLORE STORY ALL CAVEATS POSTER ABOUT CONTACT

decision tree guide you toward your graphic possibilities.

Numeric Categoric Num & Cat Maps Network Time series



<https://www.data-to-viz.com>

A set of several numeric variables giving features for each sample. One of the variable is ordered and will be used for the X axis most of the time.

Group	Var 1	Var 2	...
A	1	1.1	...
A	2	4.3	...
A	3	2.1	...
B	1	9.4	...
B	2	9.4	...
...

ONE CAT
SEVERAL NUM

A NUM. IS
ORDERED



STACKED AREA

A stacked version of the area chart to compare several groups.

About

A [stacked area chart](#) is the extension of a basic [area chart](#) which displays the evolution of the value of several groups on the same graphic. The values of each group are displayed on top of each other, what allows to check on the same figure the evolution of both the total of a numeric variable, and the importance of each group.

If only the relative importance of each group interests you, you should probably draw a percent stacked area chart. It is the same thing, but proportion of each group are represented instead of absolute value.

[Stacked area chart](#) are criticized. Indeed, it can be hard to read the evolution of a specific group, since the reader has to subtract the other groups in his mind. It is often better to use small multiple or line plot instead.

Common Mistakes

- Use it with care, try using small multiple or line chart instead.
- The group order (from bottom to top) can have an influence, try several orders.

Code

[R graph gallery](#) [Python gallery](#) [D3.js gallery](#)

Read More

See the [dedicated page](#).

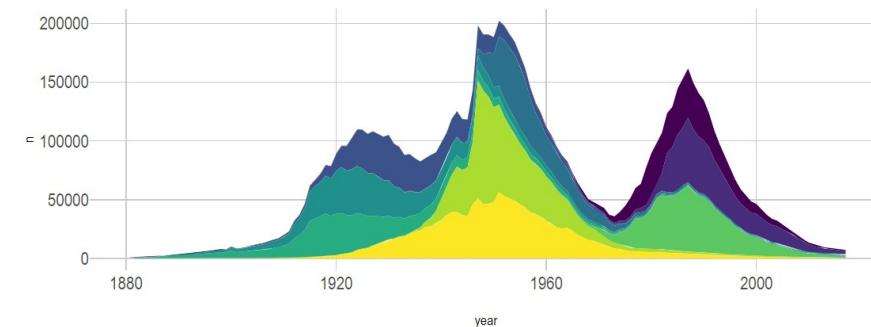
← → C 🔒 https://r-graph-gallery.com/stacked-area-graph

← the R Graph Gallery

Q CHART TYPES QUICK TOOLS ALL RELATED ABOUT

GET CODE

Popularity of American names in the previous 30 years



A photograph of a waterfall cascading down a rocky cliff face. The cliff is covered in patches of green moss and some yellow autumn leaves. The water flows from the top right towards the bottom left, creating white foam at the base. The background shows more of the rocky terrain and some bare branches.

SHINY

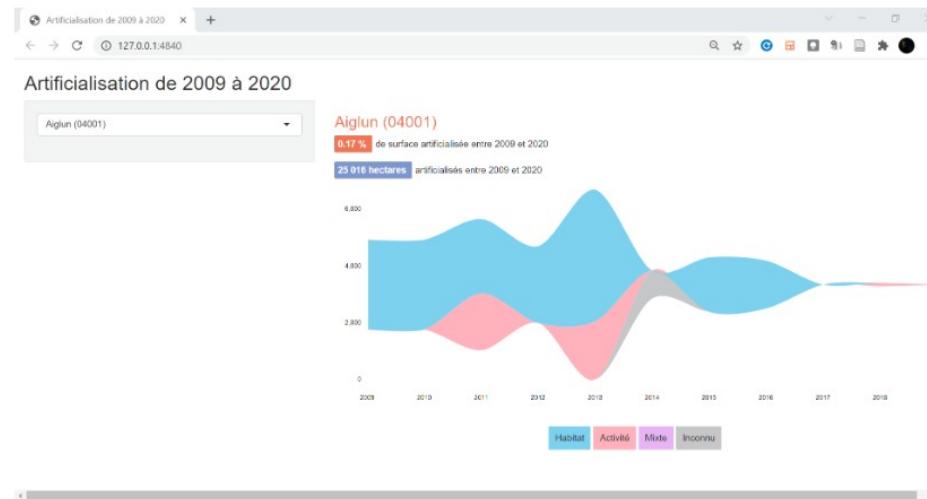
MASTERCLASS SHINY

Dataviz masterclass



Notebooks pour la création d'une application Shiny sur l'artificialisation.

Ils ont été réalisés à l'occasion du Mois de l'Innovation Publique 2021.



Notebooks

0. [Introduction](#)

<https://datagistips.github.io/dataviz-masterclass>

Préambule

Template de base

- Pose les bases
- Lecture des données et liste déroulante des communes
- Affiche un tableau des résultats

Dataviz

Contexte

Charte

Contexte

- reactive

Carto

- reactive

Refactoring

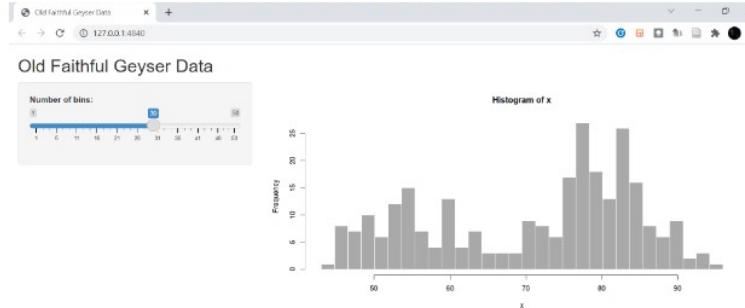
Carto

Refactoring

Dataviz

Refactoring

Contexte



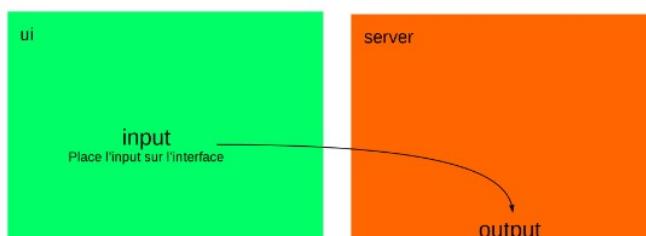
```
library(shiny)
ui <- fluidPage(
  # Application title
  titlePanel("Old Faithful Geyser Data"), # on changera le nom de l'appli plus tard

  sidebarLayout(
    sidebarPanel(
      "liste"
    ),
    mainPanel(
      "rезультаты"
    )
  )
)

server <- function(input, output) {
  # vide pour le moment
}

# Run the application
shinyApp(ui = ui, server = server)
```

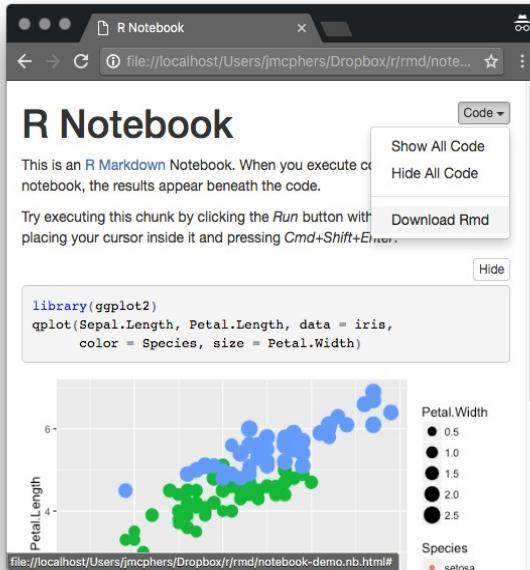
- `ui` est la partie destinée à accueillir les éléments d'interface (esthétique)
- `server` est la partie dans laquelle seront définis les mécanismes d'interaction, d'interrogation et de représentation des données. La partie `server` réagit aux contrôles (sliders, boutons, ...) définis dans `ui`



FAÇON DE PROCÉDER



Donnée



Notebook



Appli

GUIDELINES APPLE

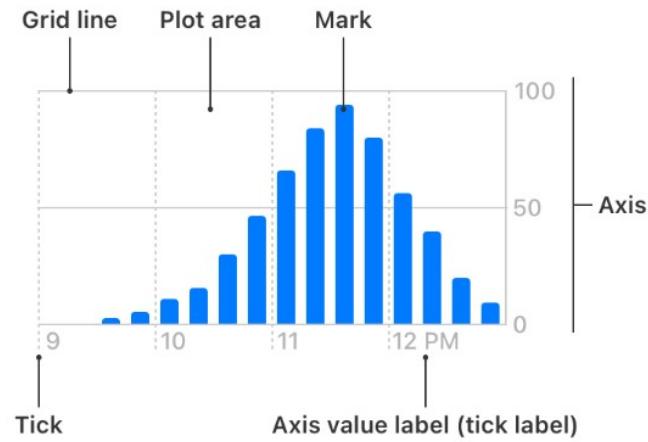
 Filter

- > Platforms
- > Foundations
- > Patterns
- ▽ Components
 - ▽ Content
 - Charts
 - Image views
 - Text views
 - Web views
 - > Layout and organization
 - > Menus and actions
 - > Navigation and search

Charting data; for developer guidance, see [Creating a chart using Swift Charts](#).

Anatomy

A chart comprises several graphical elements that depict the values in a dataset and convey information about them.



A photograph of a waterfall cascading down a rocky cliffside. The cliff is covered in patches of green moss and some yellow autumn leaves. The water flows from the top left, creating a small pool at the bottom right.

INSPIRATIONS

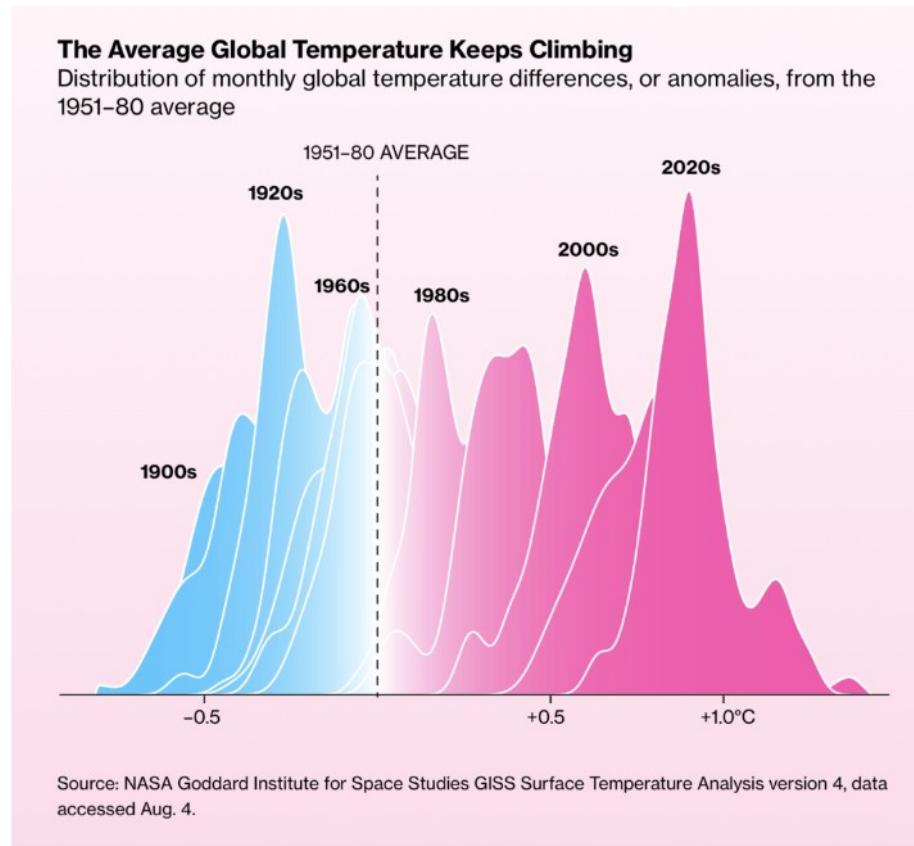
FLOWING DATA

Shifting towards more hot days, fewer cold days

August 16, 2023

Topic

Statistical
Visualization /
Bloomberg,
global warming



It keeps getting hotter around the world. Not every single day. But over time, there are increasingly more hot days and fewer cold

<https://flowingdata.com/>

Réutilisations

Rechercher parmi les 3 542 réutilisations sur data.gouv.fr

[Rechercher dans les jeux de données](#)

Q
Recherche

Tout 🕒
Santé
Transports et mobilité
Aménagement du territoire et logement
Alimentation et agriculture
Culture et loisirs
Économie et entreprise

Environnement et énergie
Emploi et formation
Politique et vie publique
Sécurité
Éducation et recherche
Société et démographie
Droit et justice

Outils open data
Autres

3559 résultats

▼
Trier par :
Pertinence
▼

@socialgouv/fiches-vdd

Fiches vos droits et démarches au format JSON

Dataset Url

particuliers <https://ecommerce-service-public.fr/vb6/3/parts/zips/vosdroits-latest.zip>

professionnels <https://ecommerce-service-public.fr/vb6/3/parts/zips/vosdroits-latest.zip>

associations <https://ecommerce-service-public.fr/vb6/3/parts/zips/vosdroits-latest.zip>

⚠ Le package contient toutes les fiches soit +100Mo de JSON.

Usage

```
const fiches = require("socialgouv/fiches-vdd");
// liste des fiches associations disponibles
const ficheAssociations = fiches.associations;
// récupérer une fiche en particulier
ficheAssociations("f3180");
// index de toutes les fiches (titre, theme...)
```

API

Fiches vos droits et démarches sur GitHub/npm

Publié le 12 juin 2020 par [Ministère du Travail du Plein emploi et de l'Insertion](#) ✓

Visualisation

Tableau de bord de suivi de l'activité épidémique par...

Publié le 6 mai 2020 par [Etalab](#) ✓

Application

Cartofriches

Publié le 14 mars 2023 par [Cerema](#) ✓

<https://www.data.gouv.fr/fr/reuses>

HACKVIZ TOULOUSE

Les gagnants et gagnantes

1er prix



Reunan Bellec

VOIR

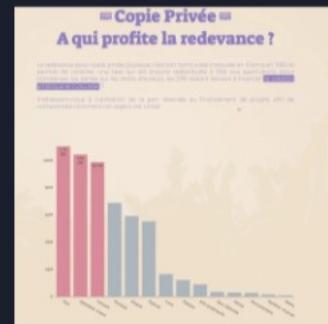
2ème prix



Joachim Béaslas,
Guillaume Poullain
(Vector France)

VOIR

3ème prix



Mickael Marchese

VOIR

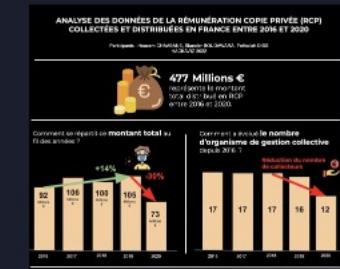
Prix spécial



Brice Renouf

VOIR

Prix coup de pouce

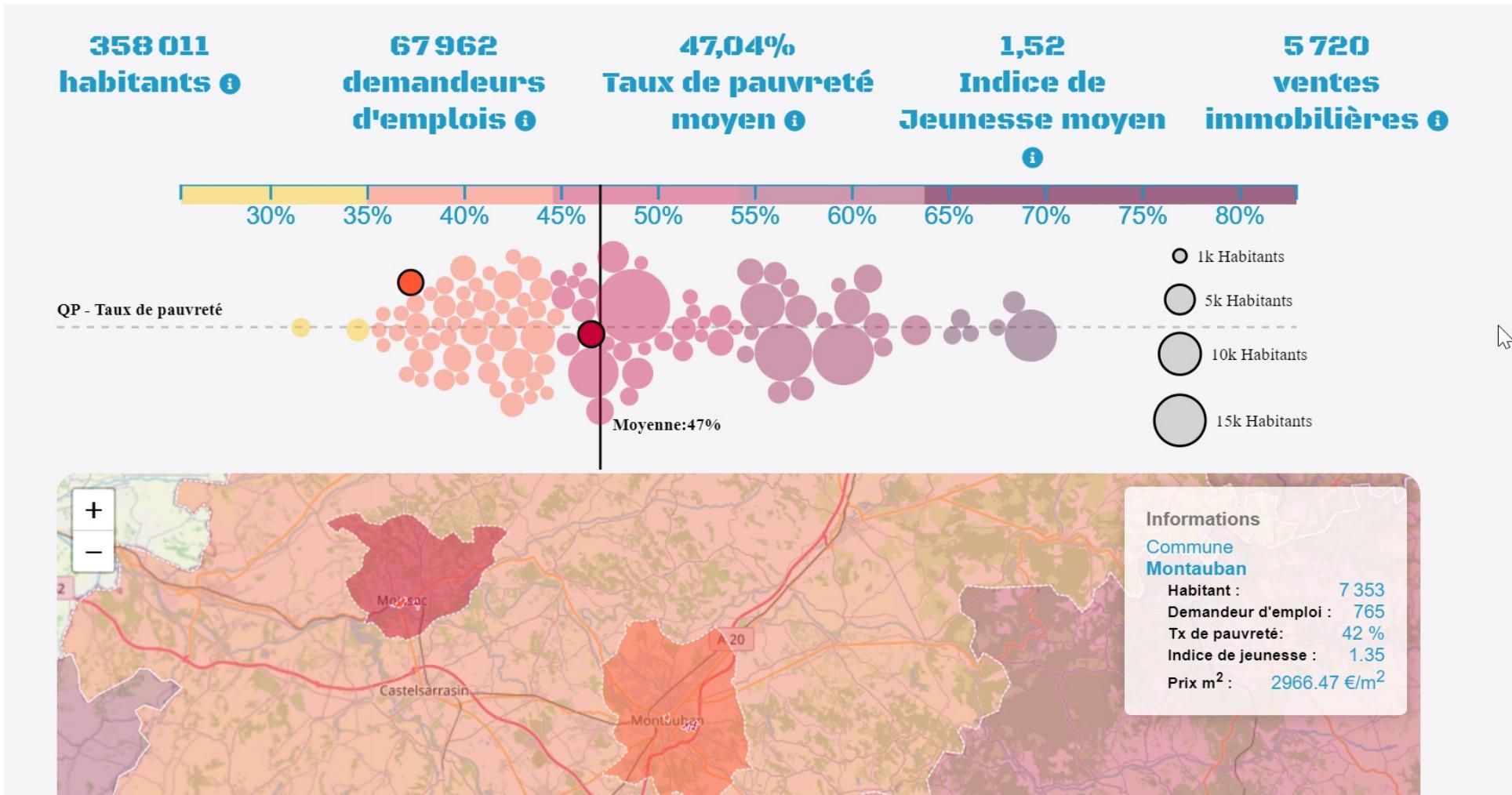


Skander Boudawara,
Houcem Chaabane,
Fethallah Diss (Les howmz)

VOIR

<https://toulouse-dataviz.fr/hackaviz/editions-precedentes>

1^{ER} PRIX 2021 - QPV



1ER PRIX 2023 - IRVE

