

**Demandez Le Programme !**

**Un environnement interactif sur le web  
avec Binder et Voilà**

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# Jupyter



The screenshot displays the JupyterLab environment. The main notebook, 'In Depth: Linear Regression', contains text and code. The code includes imports for 'matplotlib.pyplot' and 'font', and a plot command. The interface also shows a file browser on the left, a launcher for other kernels (Python 3, C++11, C++14, C++17, Julia 1.10, HyPhy (Python 3.7), R), and a console. In the background, other notebooks are visible, including 'Julia', 'python notebook', and 'R', each showing different data visualizations and code snippets.

# mybinder.org



Turn a Git repo into a collection of interactive notebooks

Have a repository full of Jupyter notebooks? With Binder, open those notebooks in an executable environment, making your code immediately reproducible by anyone, anywhere.

New to Binder? Get started with a [Zero-to-Binder tutorial](#) in [Julia](#), [Python](#) or [R](#).

Build and launch a repository

GitHub repository name or URL

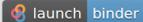
GitHub repository name or URL

Git ref (branch, tag, or commit) Path to a notebook file (optional)

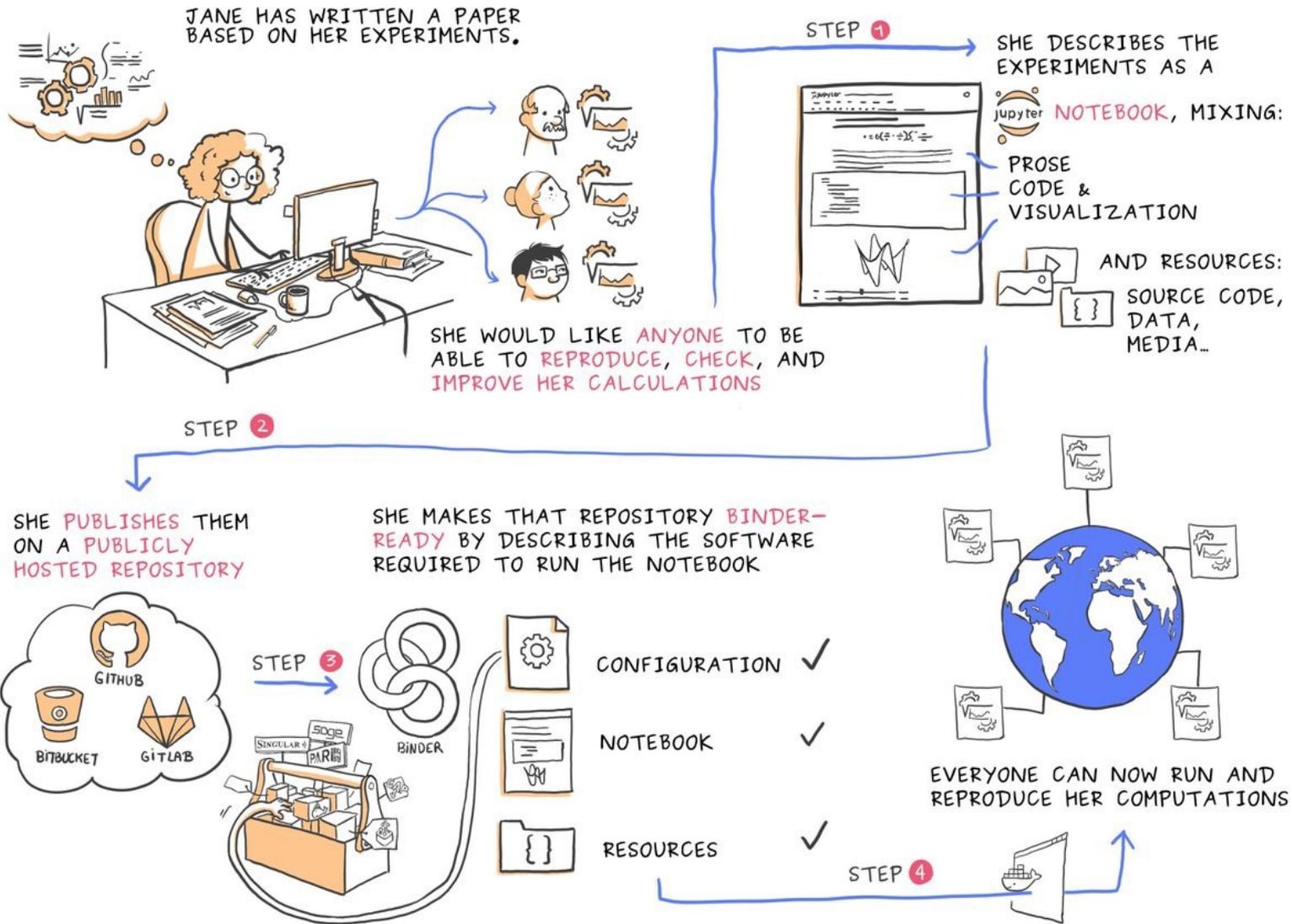
HEAD Path to a notebook file (optional) File launch

Copy the URL below and share your Binder with others:

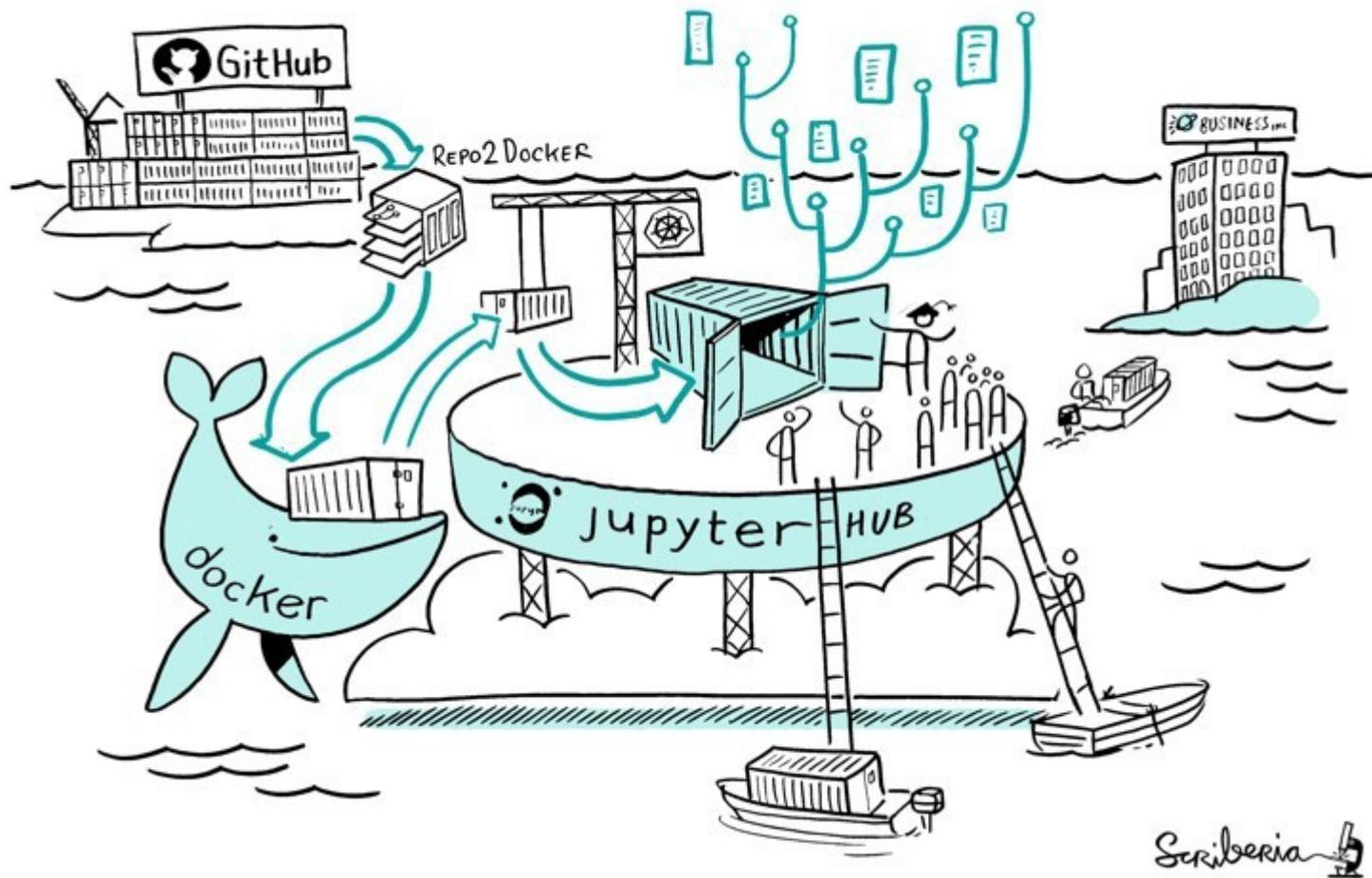
Fill in the fields to see a URL for sharing your Binder.

Copy the text below, then paste into your README to show a binder badge: 

# Binderhub ?



# Binderhub ?





# Une fédération

- Mybinder / Google cloud (USA)
- OVH (FR)
- Turing Institute (UK)
- GESIS (DE)

# Utilisations

- « Compagnons » d'articles
- Démonstrateurs
- Outils / applications
  - En particulier via Voilà
- Documentation interactive (galeries d'exemples)
- Travail sur du code de recherche / des expériences...
- STIP – transfert de code à une start-up...

# Exemple

- NeuroQuery Apps
  - [neuroquery.org](http://neuroquery.org)
  - Réalisation d'un outil utilisant voilà
    - [github.com/neuroquery/neuroquery\\_apps](https://github.com/neuroquery/neuroquery_apps)
    - Initiée par le SED, maintenue et étendue par Jérôme Dockès (Parietal, MNI)
      - Prototypage de modèles, fonctionnalités (image search)

A query on neuroscience, cognition, or brain pathologies  
 Prosopagnosia, also called **face** blindness,[2] is a cognitive disorder of face perception in which the ability to recognize familiar **faces**, including one's own **face** (self-recognition), is impaired, while other aspects of **visual** processing (e.g., **object** discrimination) and intellectual functioning (e.g., decision-making) remain intact. (from wikipedia)

Click to edit.

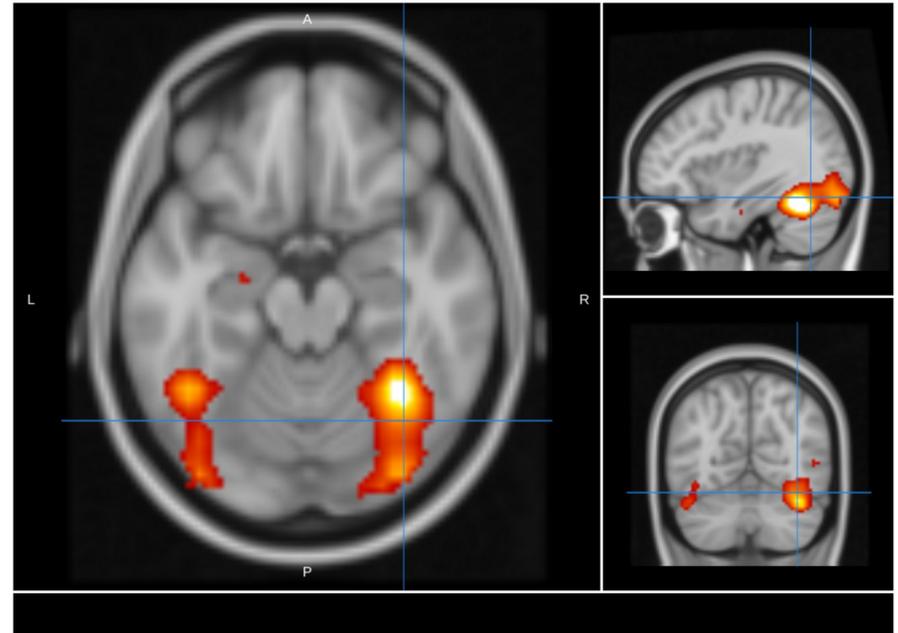
Edit query

Terms related to the query

In query	Term	Similarity	Weight in brain map	N
	face			4405
	visual			10448
	object			4358
	prosopagnosia			93
	process			13083
	recognized			2796
	recognition			4205
	one			13225
	self			6383
	cognitive			11288
	decision making			2389
	ability			6702

Show 12 entries

Showing 1 to 12 of 73 entries



Axial: + - Coronal: + - Sagittal: + - Swap View Go To Center Go To Origin

Predicted distribution of activations in the literature

Download map

Publications related to the query

- [Multi-voxel pattern analysis \(MVPA\) reveals abnormal fMRI activity in both the "core" and "extended" face network in congenital prosopagnosia](#)
- [The roles of "face" and "non-face" areas during individual face perception: Evidence by fMRI adaptation in a brain-damaged prosopagnosic patient](#)
- [Neural response to the visual familiarity of faces](#)

## Encoding with NeuroQuery

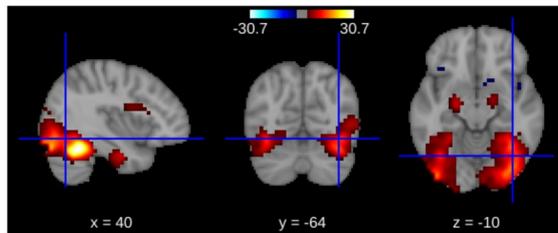
The model used here is the same as the one deployed on the [neuroquery website](#).

### Encode a query into a statistical map of the brain

Prosopagnosia, also called face blindness,[2] is a cognitive

Run query

Prosopagnosia, also called **face blindness**,[2] is a **cognitive disorder** of **face perception** in which the **ability to recognize familiar faces**, including one's own **face (self-recognition)**, is impaired, while other aspects of **visual processing** (e.g., **object discrimination**) and **intellectual functioning** (e.g., **decision-making**) remain intact. (from wikipedia)



[Download brain map](#)

### Similar Words

	similarity	weight_in_brain_map	n_documents
face	0.558165	195.006466	4405
visual	0.113055	55.964260	10448
object	0.159192	19.244281	4358
occipital	0.009118	4.115811	6796
ffa	0.017275	3.791997	407
fusiform	0.006849	3.531371	4278
auditory	0.004973	2.987473	4009
matter	0.012129	2.773210	6324
somatosensory	0.006358	2.255607	2370
parietal	0.003106	2.070436	10159
temporal	0.004996	1.711785	11897
white matter	0.006483	1.661128	4236

### Similar Documents



# Limites des binders publics

- Projets privés (gitlab...)
- Ressources (CPU, RAM)
- Contrôle du cache

# Proposition

- Une instance de BinderHub pour Inria, liée à notre Gitlab
  - Authentification via le gitlab, accès aux projets de l'utilisateur authentifié
  - Possibilité de projets privés
  - Personnalisation des ressources (RAM, CPU)

Des ingénieurs de Turing institute et GESIS (fédération binderhub) envisagent aussi une fonctionnalité similaire

# POC - déploiement

- <https://binder.saclay.inria.fr>
  - Avec QuantStack
  - Hébergé chez OVH (k8s)
  - POC uniquement, pas un déploiement pérenne
  - Uniquement destiné à tester la plate-forme elle-même
- Documentation :  
<https://gitlab.inria.fr/binderhub-inria/config>
- Cadrage avec la DSI

# Autres aspects

- Réversibilité
- Pas verrouillé sur nos outils (gitlab)
  - Intérêt d'autres SED et équipes : Saclay +
  - Sophia
  - Rennes (UI pour Algo...)
  - Lille
- STIP, startups...

# Questions / discussion

- Nous sommes intéressés par vos cas d'usage existants ou à venir
  - Parlez-en à votre SED :-)
  - [Canal jupyter](#) sur le mattermost INRIA
- Pensez à Jupyter plutôt qu'à une UI ou appli web « from scratch »