



THE UNIVERSITY
OF QUEENSLAND
AUSTRALIA

CREATE CHANGE

OSF Webinar

Leveraging Open Ecosystems to Enhance Reproducible Workflows

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Research Fellow

School of Information Technology and Electrical Engineering

Open Science is easy, right?

What if this free service stops?

Download 2GB file just to see which functions were used?

DATA AVAILABILITY STATEMENT

All data and code used in this paper can be found here:

- https://www.dropbox.com/s/ijkxmopv088e4iu/matlab_code_data_mri_paper2021.zip?dl=0•

Will the code still work in the next version? Does the reader have a matlab license?

I found a bug and need to update this

Open Science is easy, right?

Platform can
be changed:
link in OSF

Provide
source code
in an easy
accessible
way

DATA AVAILABILITY STATEMENT

We facilitate the reproducibility of our study by providing an interactive version of our implementation on a publicly accessible cloud-based platform. The readers can explore the implementation of the model (neural network), train the model with different hyper-parameters and architectures, investigate the stability of the training process, and reproduce our results with the identical model used in this manuscript (<https://github.com/sbollmannMRI/scout2B1> 320a6ab). We anonymized and stored the input data (localizer, SA2RAGE B_1^+) of 28 participants in OSF (OSF, Center for Open Science, Inc., Virginia, USA) accessible via <https://osf.io/y5cq9/>.

Interactively
running in
browser – no
setup needed

This commit
was used for the
paper, but bug
fixes possible

Data and links
can be updated
if bugs found or
services move

Open Science is easy, right?

Data upload
via command
line.















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Connecting Services to OSF











 Amazon S3	Connect or Reauthorize Account
 Bitbucket	Connect or Reauthorize Account
 Box	Connect or Reauthorize Account
 Dataverse	Connect or Reauthorize Account
 Dropbox	Connect or Reauthorize Account
 figshare	Connect or Reauthorize Account
Authorized by <i>Steffen Bollmann</i>	
 GitHub	Connect or Reauthorize Account
Authorized by <i>stebo85</i>	
Scout2B1	Disconnect Account
 GitLab	Connect or Reauthorize Account
Authorized on https://gitlab.com	
 Google Drive	Connect or Reauthorize Account
 Mendeley	Connect or Reauthorize Account
 OneDrive	Connect or Reauthorize Account
 ownCloud	Connect or Reauthorize Account


Registrations Contributors **Add-ons** Settings

Select Add-ons

Sync your projects with external services to help stay connected and organized. Select a category and browse the options.

Categories	Search...
All	 Amazon S3 Enable
Storage	 Bitbucket Enable
Citations	 Box Enable
	 Dataverse Enable
	 Dropbox Enable
	 figshare Enable
	 GitHub Enable
	 GitLab Enable

Configure Add-ons

 ownCloud	Import Account from Profile
--	---

Setting up OSF command line client



osfclient / osfclient

Watch 12 Star 79 Fork 45

<> Code Issues 57 Pull requests 9 Actions Security Insights

master 2 branches 5 tags Go to file Add file Code

fellio Merge branch 'release/0.0.4' into master 5ea77c4 on 8 Sep 2020 281 commits

LOGO	Add small logo for readme	4 years ago
build_tools	Install devRequirements in travis	4 years ago
docs	Add a note about python 3 aliases	3 years ago
osfclient	Add rate limiter for requests	5 months ago
.coveragerc	Remove unit test files from coverage calculation	4 years ago
.gitignore	add local build dirs to .gitignore	5 months ago
.travis.yml	switched pypi user to osfclient	3 years ago
CHANGELOG	add CHANGELOG for previous versions & merges	5 months ago
CONDUCT.md	Add contributing guidelines	4 years ago
CONTRIBUTING.md	these guidelines	3 years ago
LICENSE	Add a license.	4 years ago
MANIFEST.in	single source	3 years ago
README.rst	update README	5 months ago
VERSION	bump version	5 months ago
devRequirements.txt	Switch to RTD theme	4 years ago
requirements.txt	Add missing dependency	4 years ago
setup.cfg	include LICENSE in distributions	3 years ago
setup.py	Add long_description; fix header styling; add py36 classifier	3 years ago

About

A python library and command-line client for file storage on OSF

osfclient.readthedocs.io/en/stable/

python science open-science data-management osf

Readme

BSD-3-Clause License

Releases

5 tags

Packages

No packages published

Used by 57

Contributors 18

```
$ pip install osfclient
```

Setting up OSF command line client



```
# setup a local folder for an existing project
$ osf init
```

```
Provide a username for the config file [current username: ]:
steffen.bollmann@cai.uq.edu.au
Provide a project for the config file [current project: ]:
wgrd9
```

Testing the osfclient:

```
osf ls
```

```
Please input your password:  
owncloud/screenshot_neurodesk.PNG
```


Uploading data to OSF using osfclient

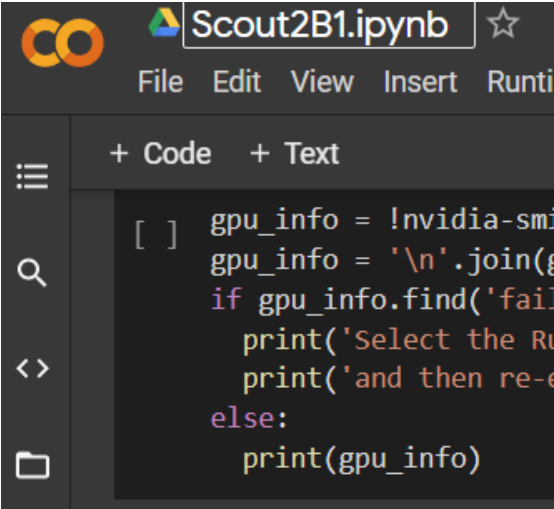
```
osf upload -r . osfstorage/data
```

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Data download
within Jupyter
notebook.



```
Scout2B1.ipynb
File Edit View Insert Runtime

+ Code + Text

[ ] gpu_info = !nvidia-smi
    gpu_info = '\n'.join(g
    if gpu_info.find('fail
        print('Select the Ru
        print('and then re-e
    else:
        print(gpu_info)
```

Using OSF data in a Jupyter Notebook

```
▶ !pip install osfclient
```

```
↳ Collecting osfclient  
  Downloading https://files.pythonhosted.org  
Requirement already satisfied: six in /usr/l  
Requirement already satisfied: tqdm in /usr/  
Requirement already satisfied: requests in /  
Requirement already satisfied: chardet<4,>=3  
Requirement already satisfied: certifi>=2017  
Requirement already satisfied: urllib3!=1.25  
Requirement already satisfied: idna<3,>=2.5  
Installing collected packages: osfclient  
Successfully installed osfclient-0.0.4
```

Using OSF data in Jupyter Notebook

5.1KB

Private

Make Public

0

...



```
!osf -p wgrd9 clone .|
```

```
0files [00:00, ?files/s]  
100% 177/177 [00:00<00:00, 1.06Mbytes/s]  
1files [00:07, 7.93s/files]  
100% 171/171 [00:00<00:00, 1.16Mbytes/s]  
2files [00:11, 6.57s/files]  
100% 191/191 [00:00<00:00, 1.26Mbytes/s]
```



```
!ls
```



```
osfstorage owncloud
```

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GitHub



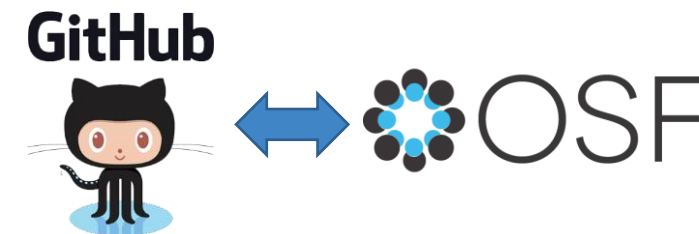
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Authorized by Steffen Bollmann	
 GitHub	Connect or Reauthorize Account
Authorized by stebo85	
Scout2B1	Disconnect Account
 GitLab	Connect or Reauthorize Account
Authorized on https://gitlab.com	
 Google Drive	Connect or Reauthorize Account
 Mendeley	Connect or Reauthorize Account
 OneDrive	Connect or Reauthorize Account
 ownCloud	Connect or Reauthorize Account


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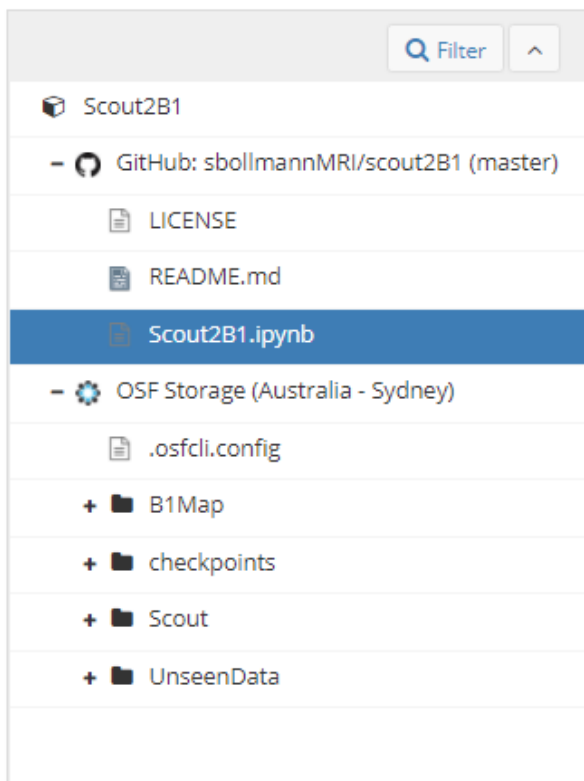
Categories	Search...
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Storage	 Bitbucket Enable
Citations	 Box Enable
	 Dataverse Enable
	 Dropbox Enable
	 figshare Enable
	 GitHub Enable
	 GitLab Enable

Configure Add-ons


 ownCloud

[Import Account from Profile](#)

OSF Github integration + Jupyter Notebook rendering



View this file on [GitHub](#).

 [Open in Colab](#)

Setup for running on Google Colab

This notebook is built to run completely on google colab so there is no further setup required, except making sure to select a GPU: Click Runtime -> Change runtime type -> GPU

Setup for Running on your own GPU

This notebook can also run on your own GPU. Either download the notebook file and run directly via jupyter, or you could even connect this Colab notebook to your local GPU:

- from the system where you run the Browser with google colab, open an SSH connection to your GPU server forwarding the jupyter port:

```
ssh -L 8888:127.0.0.1:8888 user@your-GPU-server
```

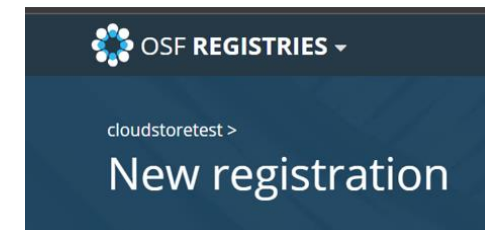
- make sure that the user on the GPU server has access to the "local_scratch_dir" (e.g. /content)

```
sudo mkdir /content  
sudo chown $USER /content
```


Open Science is easy, right?


DATA AVAILABILITY STATEMENT


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Creating
snapshots for
version control.

Register project to preserve state at certain point in time

 OSF REGISTRIES ▾

Add New Help Donate 

cloudstoretest >

New registration

○ Metadata

● Study Information

● Design Plan

● Sampling Plan

● Variables

● Analysis Plan

● Other

● Review

<

Registration Metadata

This metadata applies only to the registration you are creating, and will not be applied to your project.

Title *

Description *

Contributors
Edit contributors on your project

Name	Permission	Citation
------	------------	----------

Next →

Auto-saved:
a few seconds ago

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Thank you

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🌐 www.mri.sbollmann.net

🐦 [@sbollmann_MRI](https://twitter.com/sbollmann_MRI)

🐙 github.com/sbollmannmri

CRICOS code 00025B

