Automating Dataverse with pyDataverse

Migrations and Testing

Stefan Kasberger

AUSSDA - The Austrian Social Science Data Archive

Materials

GitHub: AUSSDA/dataverse2021_automation-with-pydataverse

bit.ly/3pMnjPv


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pyDataverse
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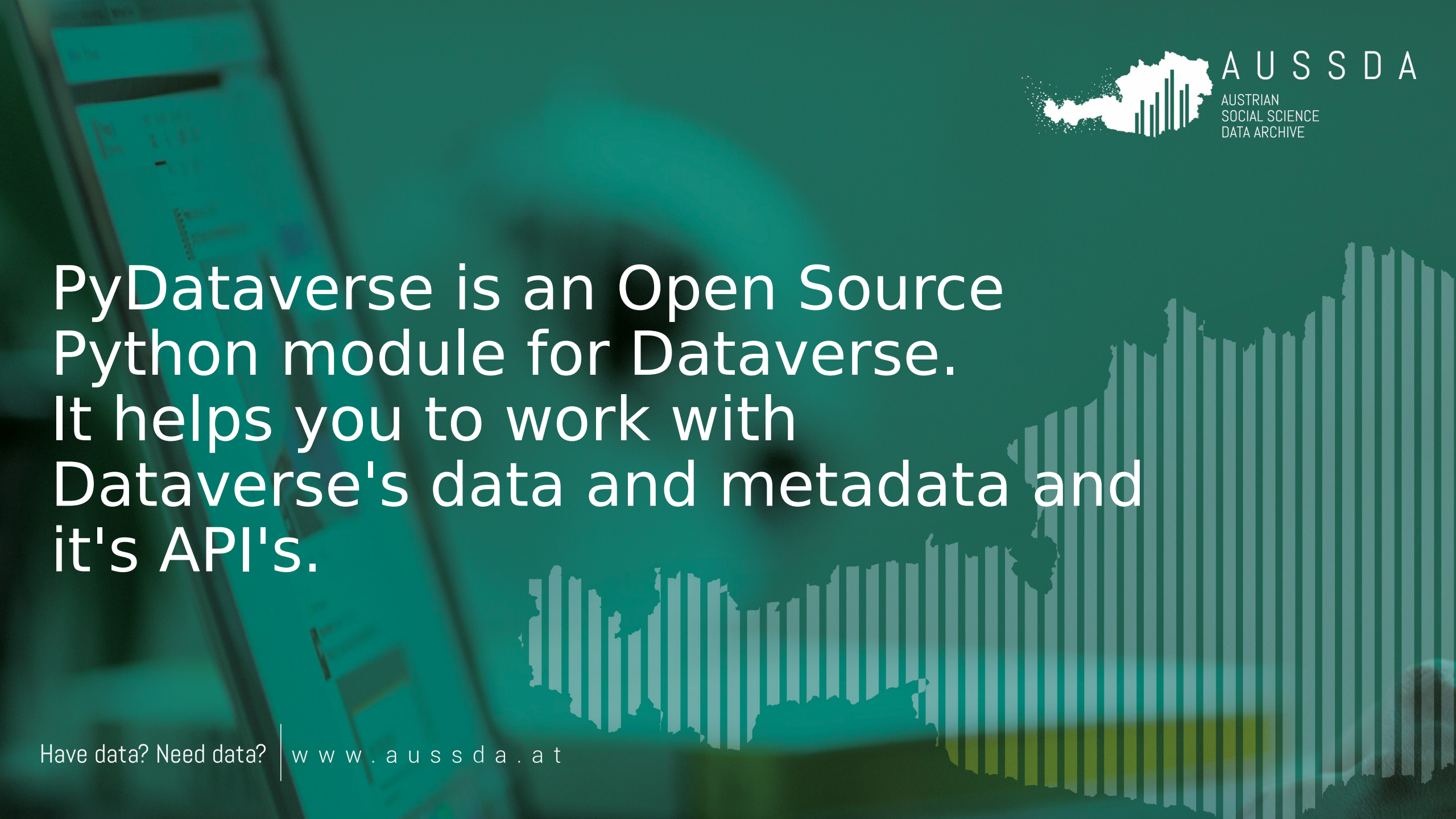
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PyDataverse is an Open Source Python module for Dataverse. It helps you to work with Dataverse's data and metadata and it's API's.
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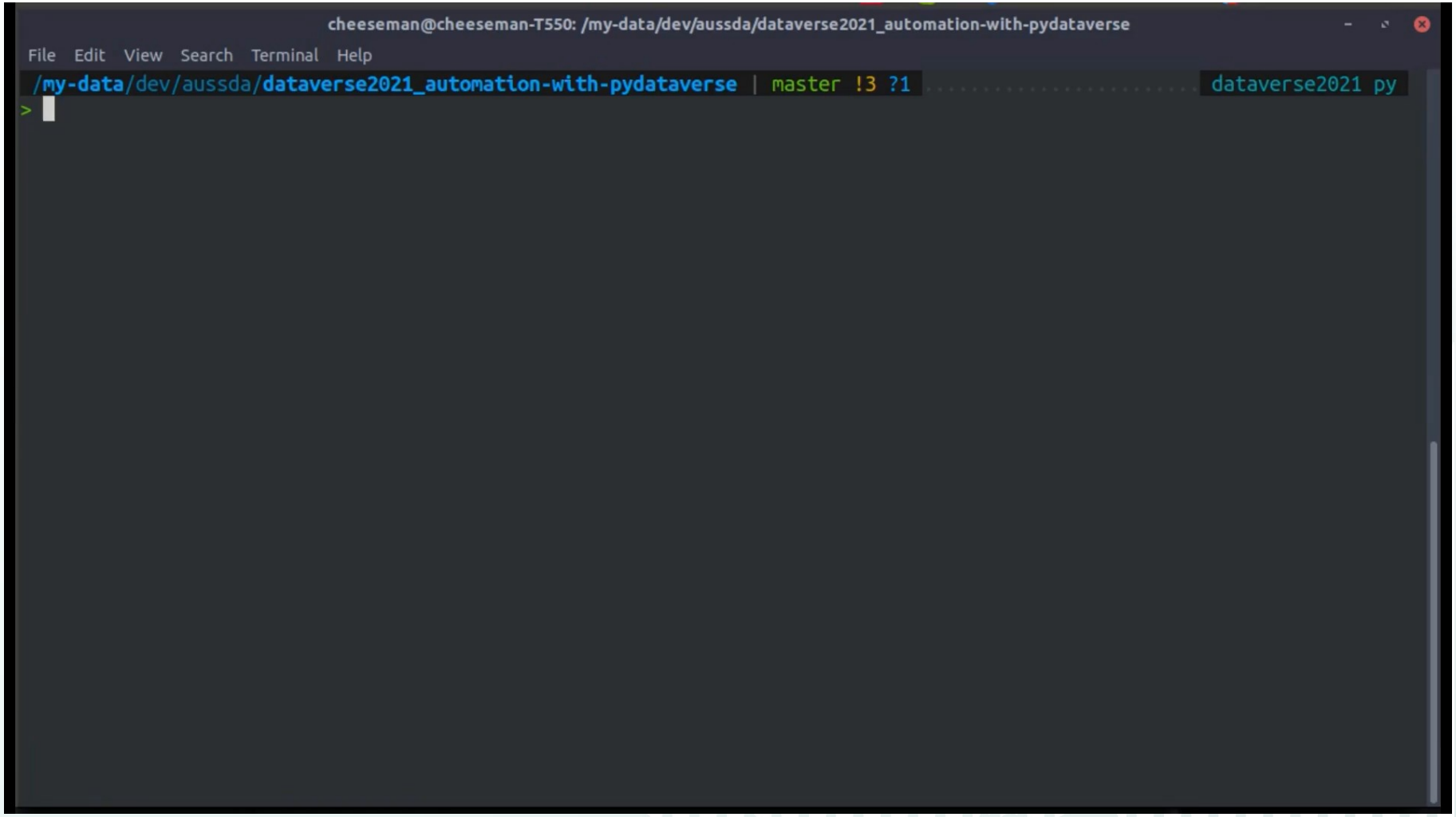
pyDataverse

- Goal: Migrations, Automation (Testing), Microservices, Data Science
- Python + Pip
- Latest: v0.3.1
- Open Source: MIT
- Tested and Docs
- GitHub: gdcc/pydataverse
- Funded: AUSSDA + SSHOC

Models + API


cheeseman@cheeseman-T550: /my-data/dev/aussda/dataverse2021_automation-with-pydataverse
File Edit View Search Terminal Help
/my-data/dev/aussda/dataverse2021_automation-with-pydataverse | master !3 ?1
dataverse2021 py
>

Jupyter Notebook

[1]:
```
import io
import pandas as pd
from pyDataverse.api import DataAccessApi
from pyDataverse.api import NativeApi
```

[2]:
```
# Establish API connection and retrieve content of the dataset
native_api = NativeApi("https://data.aussda.at")
resp = native_api.get_dataset("doi:10.11587/P5YJ0O")
# Get all datafiles related information
datafiles = resp.json()["data"]["latestVersion"]["files"]
# Let's dig further and display the available files
for df in datafiles:
    filename = df["dataFile"]["filename"]
    datafile_id = df["dataFile"]["id"]
    print(f'Filename is "{filename}", datafile ID is "{datafile_id}"')
```

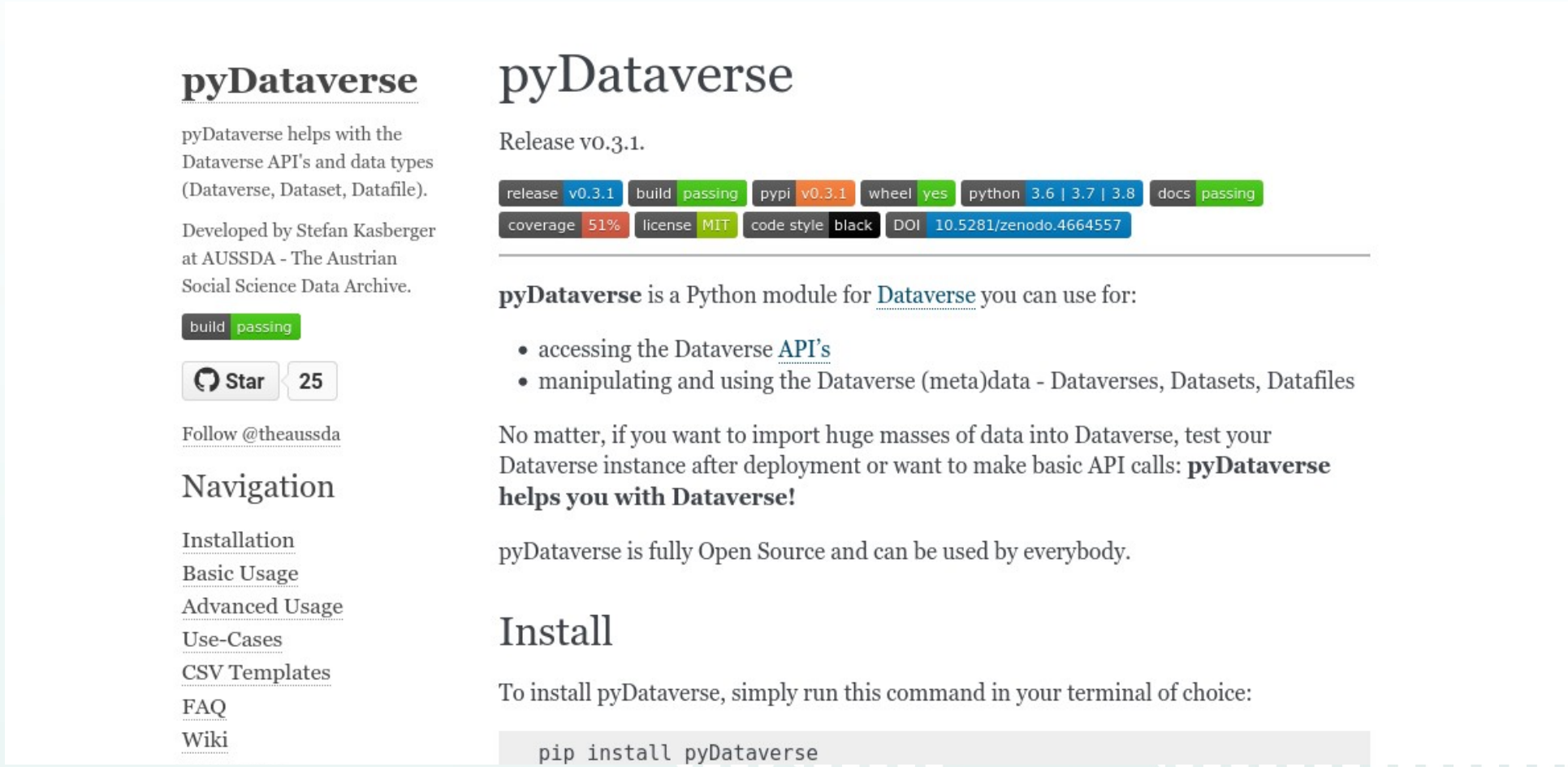
```
Filename is "10095_da_de_v2_0.tab", datafile ID is "4025"
Filename is "10095_da_de_v2_0.zip", datafile ID is "4024"
Filename is "10095_da_de_v2_0.zsav", datafile ID is "4026"
Filename is "10095_mr_en_v2_0.pdf", datafile ID is "4031"
Filename is "10095_om_de_v2_0.zip", datafile ID is "4028"
Filename is "10095_qu_de_v2_0.pdf", datafile ID is "4029"
Filename is "10095_vi_de_v2_0.tab", datafile ID is "4032"
```

Jupyter Notebook

[3]:
```
# To download data, we need the DataAccess API
da_api = DataAccessApi(base_url)
# Let's select the first datafile
datafile_id = "4025"
# Download the datafile
resp = da_api.get_datafile(datafile_id)
# Turn the content into a Pandas DataFrame
data = io.StringIO(str(resp.content,'utf-8'))
data = pd.read_csv(data, sep="\t")
print(data.head(1))
```

```
             version                   doi  \
0  2.0 (2021-03-31)  doi:10.11587/P5YJ0O

                                        CITATION  \
0  Kittel, Bernhard; Kritzinger, Sylvia; Boomgaar...

                            FUNDING_ACKNOWLEDGEMENT  RESPID  ENTRY_WAVE  \
0  Data collection has been made possible by COVI...  990001          14

   W1_PANELIST  W2_PANELIST  W3_PANELIST  W4_PANELIST  ...  W15_Q82A6  \
0          NaN          NaN          NaN          NaN  ...        NaN

   W15_Q82A7  W15_Q82A8  W15_Q82A9  W15_Q83  W15_Q84A1  W15_Q84A2  W15_Q84A3  \
0        NaN        NaN        NaN      NaN        NaN        NaN        NaN
```

Docs



pyDataverse

pyDataverse helps with the Dataverse API's and data types (Dataverse, Dataset, Datafile).

Developed by Stefan Kasberger at AUSSDA - The Austrian Social Science Data Archive.

build passing

Star 25

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Navigation

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pyDataverse

Release v0.3.1.

release v0.3.1 | build passing | pypi v0.3.1 | wheel yes | python 3.6 | 3.7 | 3.8 | docs passing
coverage 51% | license MIT | code style black | DOI 10.5281/zenodo.4664557

pyDataverse is a Python module for Dataverse you can use for:

- accessing the Dataverse API's
- manipulating and using the Dataverse (meta)data - Dataverses, Datasets, Datafiles

No matter, if you want to import huge masses of data into Dataverse, test your Dataverse instance after deployment or want to make basic API calls: **pyDataverse helps you with Dataverse!**

pyDataverse is fully Open Source and can be used by everybody.

Install

To install pyDataverse, simply run this command in your terminal of choice:

```
pip install pyDataverse
```

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Migrations

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Migrations

- Dataverse 2 Dataverse
- NESSTAR 2 Dataverse
- GESIS Dspace 2 Dataverse
- Paper 2 Dataverse

} CSV templates 2 Dataverse

More than 1.100 datasets and 1.900 datafiles imported at AUSSDA!

=

Saved more than 600 hours of boring work!

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Dataverse Tests

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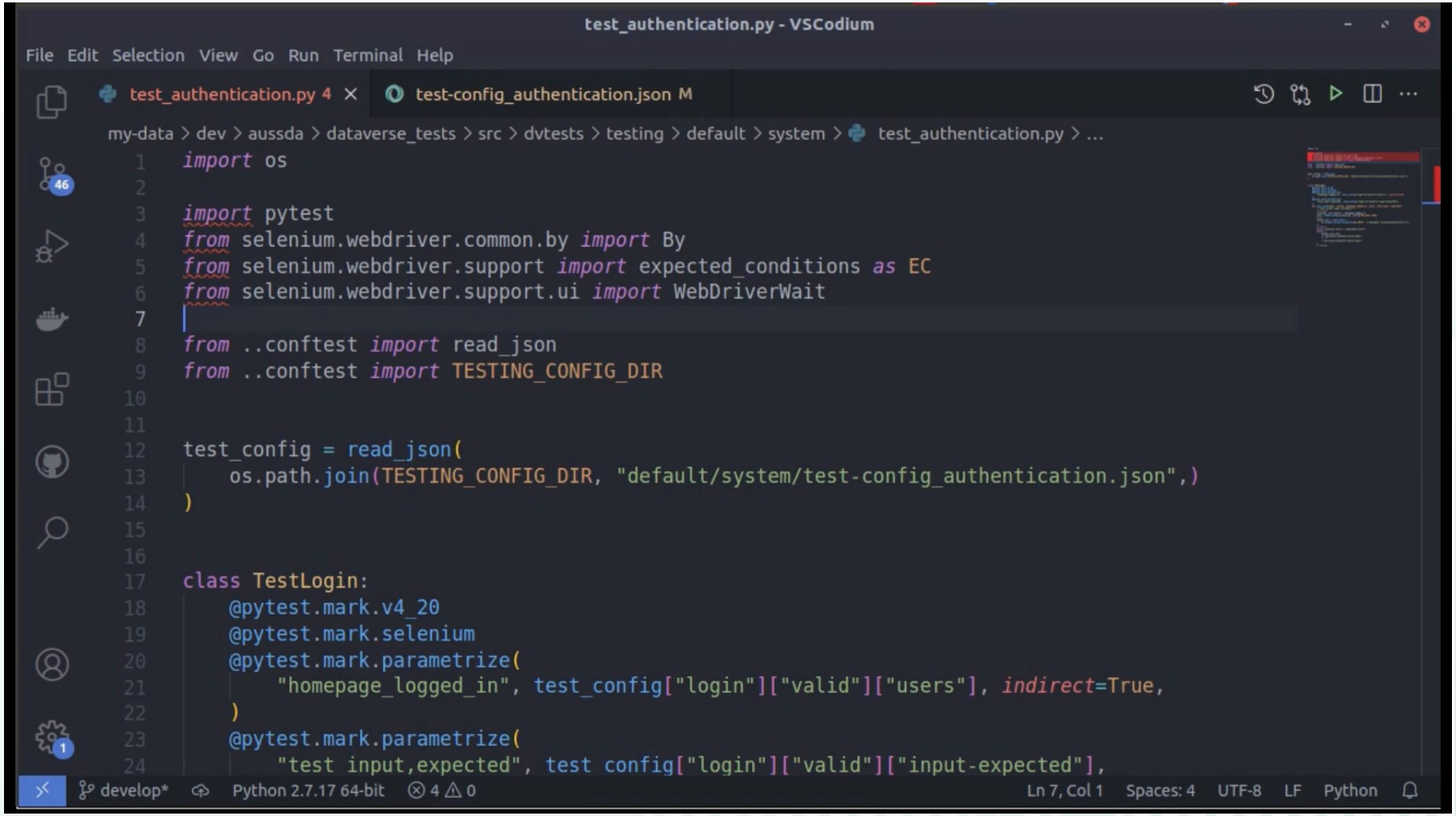
Dataverse Tests

- Goal: Dataverse Tests for DevOps - test your newly setup or updated or running Dataverse installation → optimized for Jenkins.
- PyDataverse, Pytest + Selenium
- Open Source: MIT
- GitHub: gdcc/dataverse_tests
- new → must be used to become more stable
- A few flexible and modular tests, easy to extend
- Settings Management
- Configs: tests, Dataverse installations, users
- Funded: AUSSDA + SSHOC

Tests

- Basic: API, OAI-PMH, Sitemap, robots.txt, DOI URL, ToU
- Frontend: Create Dataverse, Search
- Authentification: normal, Shibboleth
- Data completeness

Test: Shibboleth Login



Utils

- Helper functions
- CLI
- Functions:
  - Create testdata
  - Remove testdata
  - Collect data
  - Create users

Utils: Create testdata

- :root
  - dataverse-1
    - dataset-1
      - file: essay.txt
      - file: doc.pdf
    - dataset-2
      - file: data.csv
  - dataverse-2
    - dataverse-3
    - dataset-3
      - file: data.tab
    - dataset-1

Dataverse Testdata

- Goal: Collection of quality metadata
- GitHub: aussda/dataverse_testdata
- Funding: AUSSDA
- Other repo:
  - GitHub: IQSS/dataverse-sample-data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Community wins!

- An Open Source project is only as good, as it's community!
- The projects are not mine. They are community projects, and can only sustain if others join in.
- How to contribute
  - Use it
  - Create issues
  - Contribute

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Thanks!

For questions please contact:

stefan.kasberger@univie.ac.at

@stefankasberger

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