
pyscaffoldext-dsproject Documentation

Release unknown

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PyScaffold extension that adds a perfect structure for Data Science projects.

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1.1 pyscaffoldext-dsproject

PyScaffold extension tailored for *Data Science* projects. This extension is inspired by [cookiecutter-data-science](#) and enhanced in many ways. The main differences are that it

1. advocates a proper Python package structure that can be shipped and distributed,
2. uses a [conda](#) environment instead of something [virtualenv](#)-based and is thus more suitable for data science projects,
3. more default configurations for [Sphinx](#), [pytest](#), [pre-commit](#), etc. to foster clean coding and best practices.

Also consider using [dvc](#) to version control and share your data within your team. Read [this blogpost](#) to learn how to work with JupyterLab notebooks efficiently by using a data science project structure like this.

The final directory structure looks like:

— AUTHORS.md	<- List of developers and maintainers.
— CHANGELOG.md	<- Changelog to keep track of new features and fixes.
— CONTRIBUTING.md	<- Guidelines for contributing to this project.
— Dockerfile	<- Build a docker container with `docker build .`.
— LICENSE.txt	<- License as chosen on the command-line.
— README.md	<- The top-level README for developers.
— configs	<- Directory for configurations of model & application.
— data	
— external	<- Data from third party sources.
— interim	<- Intermediate data that has been transformed.
— processed	<- The final, canonical data sets for modeling.
— raw	<- The original, immutable data dump.
— docs	<- Directory for Sphinx documentation in rst or md.
— environment.yml	<- The conda environment file for reproducibility.
— models	<- Trained and serialized models, model predictions, or model summaries.
— notebooks	<- Jupyter notebooks. Naming convention is a number (for ordering), the creator's initials and a description, e.g. `1.0-fw-initial-data-exploration`.
— pyproject.toml	<- Build configuration. Don't change! Use `pip install -e .` to install for development or to build `tox -e build`.
— references	<- Data dictionaries, manuals, and all other materials.

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reports	<- Generated analysis as HTML, PDF, LaTeX, etc.
└─ figures	<- Generated plots and figures for reports.
scripts	<- Analysis and production scripts which import the actual PYTHON_PKG, e.g. train_model.
setup.cfg	<- Declarative configuration of your project.
setup.py	<- [DEPRECATED] Use `python setup.py develop` to install for development or `python setup.py bdist_wheel` to build.
src	
└─ PYTHON_PKG	<- Actual Python package where the main functionality goes.
tests	<- Unit tests which can be run with `pytest`.
.coveragerc	<- Configuration for coverage reports of unit tests.
.isort.cfg	<- Configuration for git hook that sorts imports.
.pre-commit-config.yaml	<- Configuration of pre-commit git hooks.

See a demonstration of the initial project structure under [dsproject-demo](#) and also check out the documentation of [PyScaffold](#) for more information.

1.1.1 Usage

Just install this package with `conda install -c conda-forge pyscaffoldext-dsproject` and note that `putup -h` shows a new option `--dsproject`. Creating a data science project is then as easy as:

```
putup --dsproject my_ds_project
```

The flag `--dsproject` comprises additionally the flags `--markdown`, `--pre-commit` and `--no-skeleton` for convenience.

1.1.2 Making Changes & Contributing

This project uses `pre-commit`, please make sure to install it before making any changes:

```
conda install pre-commit
cd pyscaffoldext-dsproject
pre-commit install
```

It is a good idea to update the hooks to the latest version:

```
pre-commit autoupdate
```

Please also check PyScaffold's [contribution guidelines](#).

1.2 License

The MIT License (MIT)

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1.4 Changelog

1.4.1 Version 0.7.2

- Fix inconsistency by renaming data/preprocessed to data/processed.

1.4.2 Version 0.7.1

- Remove separate Description section in README.md
- Remove old wheels in Dockerfile and have a comment about EXPOSE.

1.4.3 Version 0.7

- Added a Dockerfile to the project structure

1.4.4 Version 0.6.1

- Latest updates from PyScaffold
- Fix KeyError: 'long-description', issue #20

1.4.5 Version 0.6

- Curated the list of packages in `environment.yml`
- Editable install of package directly in `environment.yml`

1.4.6 Version 0.5.1

- Fix `isort` when namespaces are used
- Fix wrongs docs, i.e. `rst` -> `md`

1.4.7 Version 0.5

- Updated to use PyScaffold v4 API
- Updated Cirrus CI config file
- Added new useful tasks to `tox.ini`
- Renamed `environment.yaml` to `environment.yml`
- Added `Yellowbrick` to `environment.yml`

1.4.8 Version 0.4.1

- Fix problem with additional new lines in Windows

1.4.9 Version 0.4

- Add a `.gitignore` also in the `data` folder
- Changed wording in `README.md`

1.4.10 Version 0.3.1

- Fixed wrong folder name in `README.md` template

1.4.11 Version 0.3

- Added a `configs` folder

1.4.12 Version 0.2.1

- Fixed some docs
- Adjusted line lengths
- Some cosmetic changes

1.4.13 Version 0.2

- Reworked the general layout some more

1.4.14 Version 0.1

- Initial commit

1.5 pyscaffoldext

1.5.1 pyscaffoldext namespace

Subpackages

`pyscaffoldext.dsproject` package

Subpackages

`pyscaffoldext.dsproject.templates` package

Module contents

`pyscaffoldext.dsproject.templates.readme_md(opts: Dict[str, Any]) → str`

Adds a basic README.md

Parameters

opts – given options, see `create_project` for an extensive list.

Returns

file content as string

Submodules

`pyscaffoldext.dsproject.extension` module

Module contents

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