6 months into my 1st software development journey

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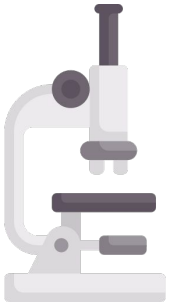
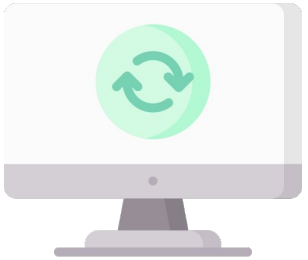
Data Science Lab (DSL) - University of Bern

About me





2013 — 2018 — 2023

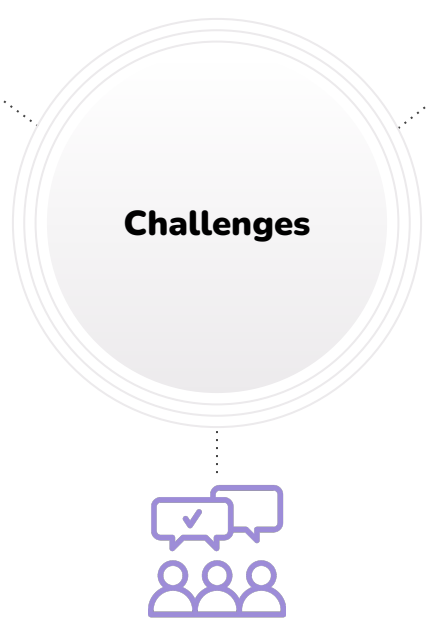
UNIVERSITÄT BERN

UNIKLINIK RWTH AACHEN

ICR The Institute of Cancer Research

UNIVERSITÄT BERN

Topics



Build the GUI

Build the GUI

Find your Community!!!

GitHub

COOKIECUTTER

https://github.com/search?q=cookiecutter&type=Repositories&p=1

Build the GUI

Find your Community!!!


```
napari-growth-cone-finder/
├── .github
│   └── workflows
│       └── test_and_deploy.yml
├── LICENSE
├── MANIFEST.in
├── napari_growth_cone_finder
│   ├── __init__.py
│   ├── _widget.py
│   ├── _reader.py
│   ├── napari.yaml
│   └── _tests
│       ├── __init__.py
│       ├── test_widget.py
│       └── test_reader.py
├── pyproject.toml
├── README.md
├── setup.cfg
└── tox.ini
```

https://github.com/napari/cookiecutter-napari-plugin

Tools

Summer Trainings

The Data Science Lab offers every summer in June and September four weeks of trainings in various areas of programming, computation, and digital skills in general. The courses are available to all university members. Click on the links below to learn more about each course and register via Ilias (don't forget to log in)!

- 2023-06-05 Introduction to Git and GitHub (09:00-17:00)
- 2023-06-06 Tools for Python: GitHub, Jupyter and conda (09:00-17:00)
- 2023-06-07 Create your personal Website (09:00-17:00)
- 2023-06-08 Introduction to Linux for users (09:00-17:00)
- 2023-06-09 Advanced Python (09:00-17:00)
- 2023-06-12 High Performance Computing (HPC) on UBELIX (09:00-12:30)
- 2023-06-13 Advanced HPC Topics (09:00-12:30)
- 2023-06-14 Data Science and ML with MATLAB (09:00-17:00)
- 2023-06-15 Machine Learning with scikit-learn (09:00-17:00)
- 2023-06-16 Deep Learning with MATLAB (09:00-17:00)

Data Science Lab - Unibe

https://www.dsl.unibe.ch/training/upcoming/

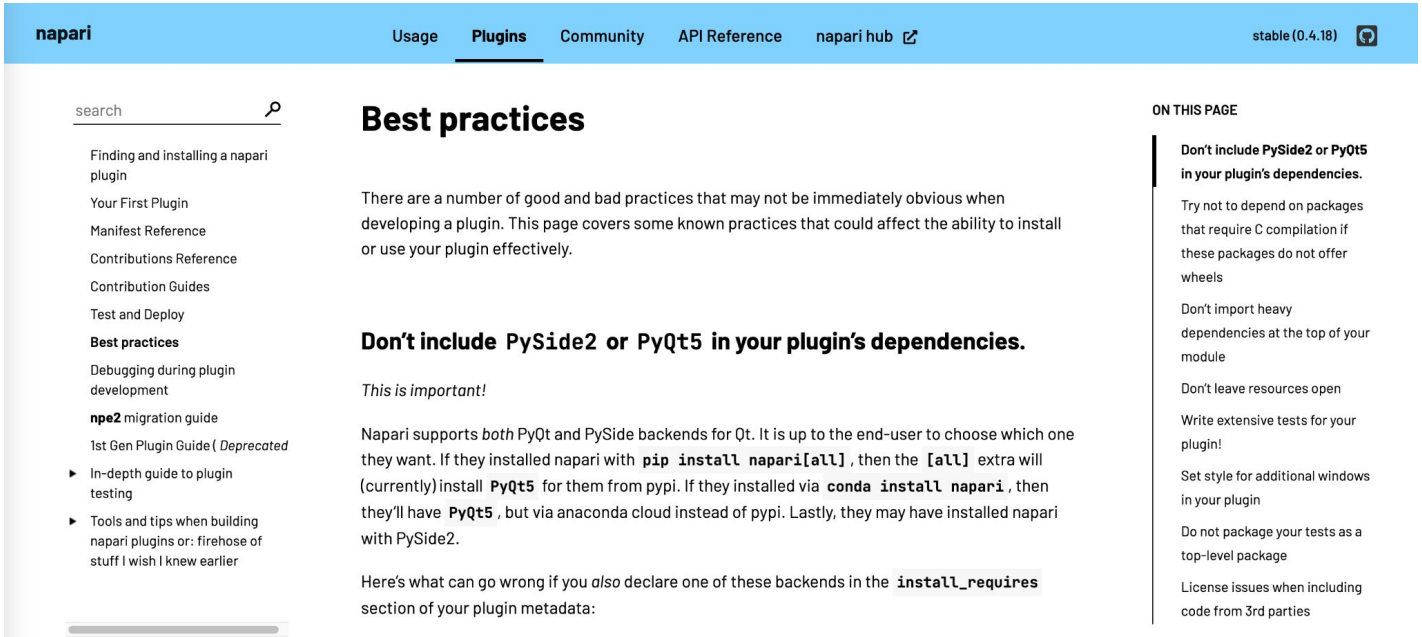
Good-practice

- Visual
- Interactivity
- Workflow

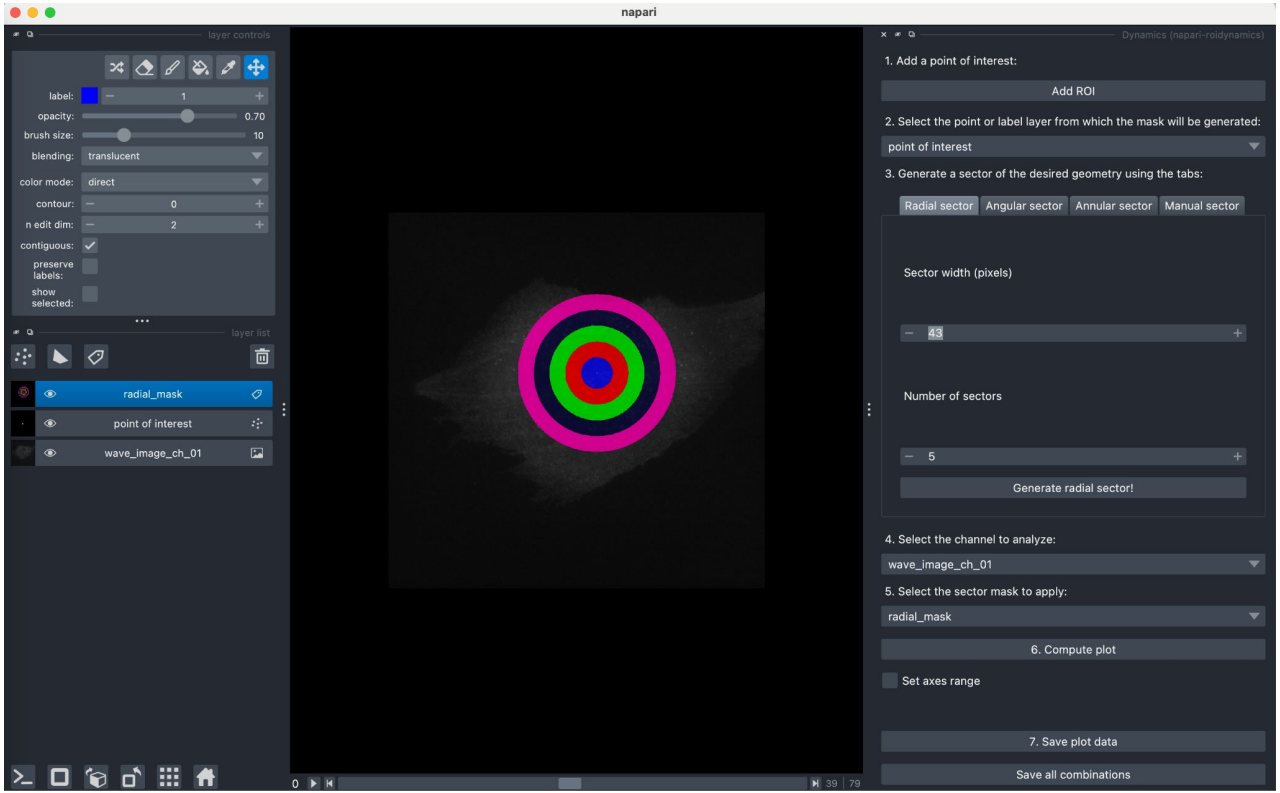
https://www.manypixels.co/blog/product-design/user-interface-design-rules

Good-practice

Copy your Community!!!



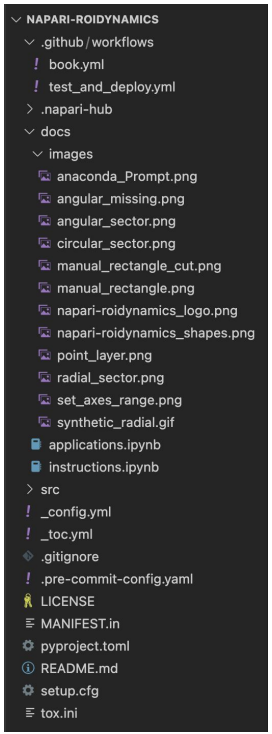
My GUI


napari
layer controls
label:
opacity:
0.70
brush size:
10
blending:
translucent
color mode:
direct
contour:
n edit dim:
contiguous:
preserve labels:
show selected:
layer list
radial_mask
point of interest
wave_image_ch_01
Dynamics (napari-roidynamics)
1. Add a point of interest:
Add ROI
2. Select the point or label layer from which the mask will be generated:
point of interest
3. Generate a sector of the desired geometry using the tabs:
Radial sector
Angular sector
Annular sector
Manual sector
Sector width (pixels)
43
Number of sectors
5
Generate radial sector!
4. Select the channel to analyze:
wave_image_ch_01
5. Select the sector mask to apply:
radial_mask
6. Compute plot
Set axes range
7. Save plot data
Save all combinations

Documentation

https://jupyterbook.org/en/stable/publish/gh-pages.html

Documentation



You can install Jupyter Book via `pip`:

```
pip install -U jupyter-book
```

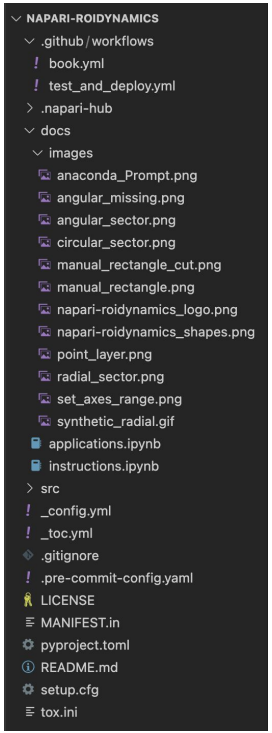
or via `conda-forge`:

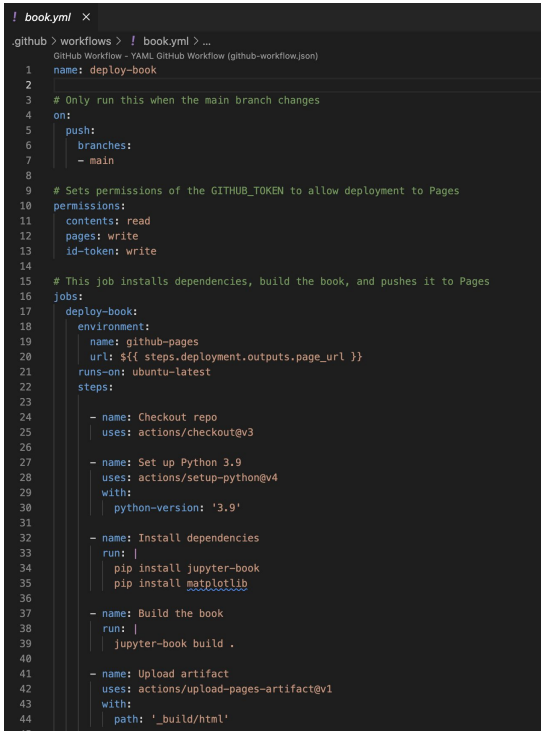
```
conda install -c conda-forge jupyter-book
```

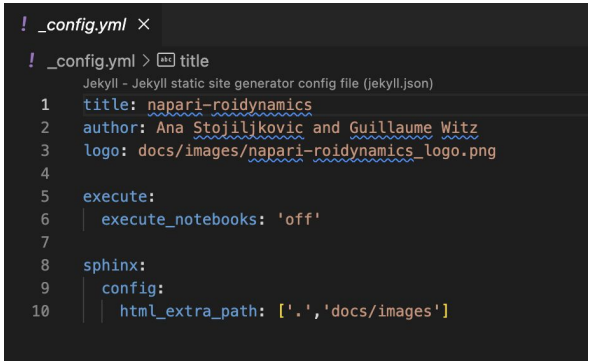
This will install everything you need to build a Jupyter Book locally.

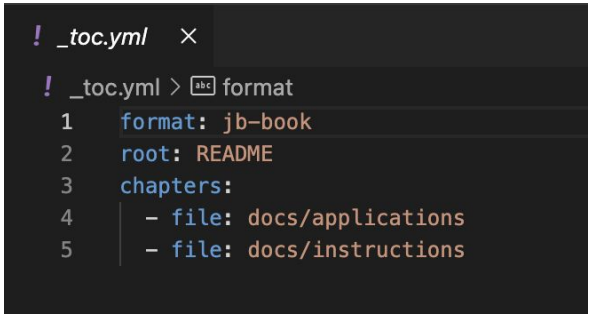
- **book.yml** in github/workflows
- folder containing images
- *Jupyter notebooks(.ipynb)* or *markdowns(.md)* → will become sections of the documentation website
- **_config.yml**
- **_toc.yml**

Documentation

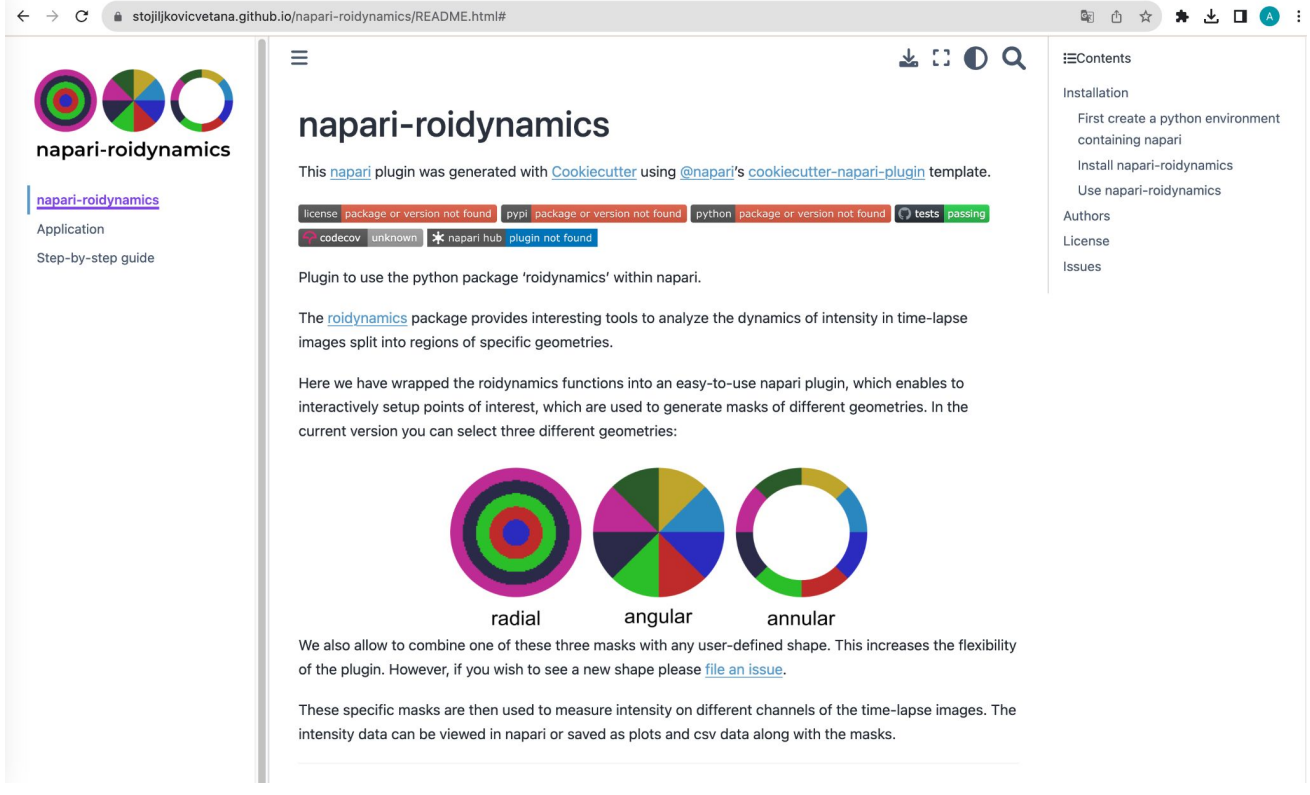






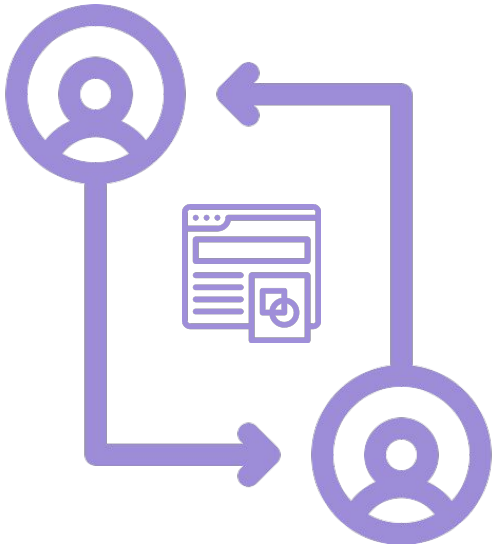


Documentation



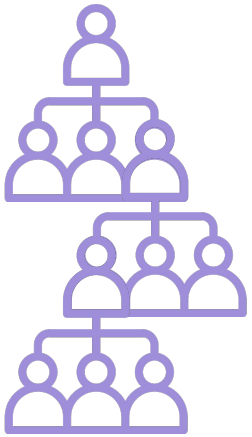
Outreach - reach out!

Ask your Community!!!



Users

Developers



Keep track of the feedback