GiraffeTools

A web application for shareable data analysis workflows
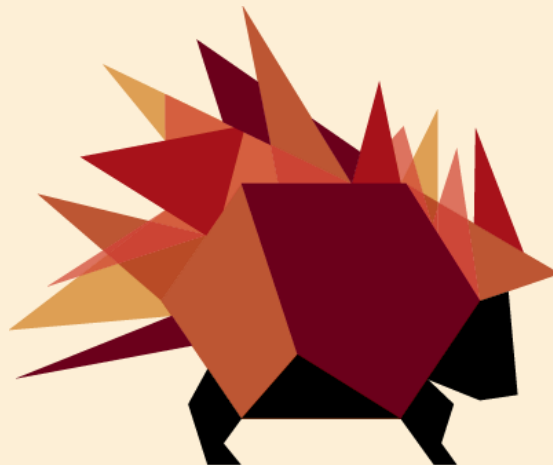
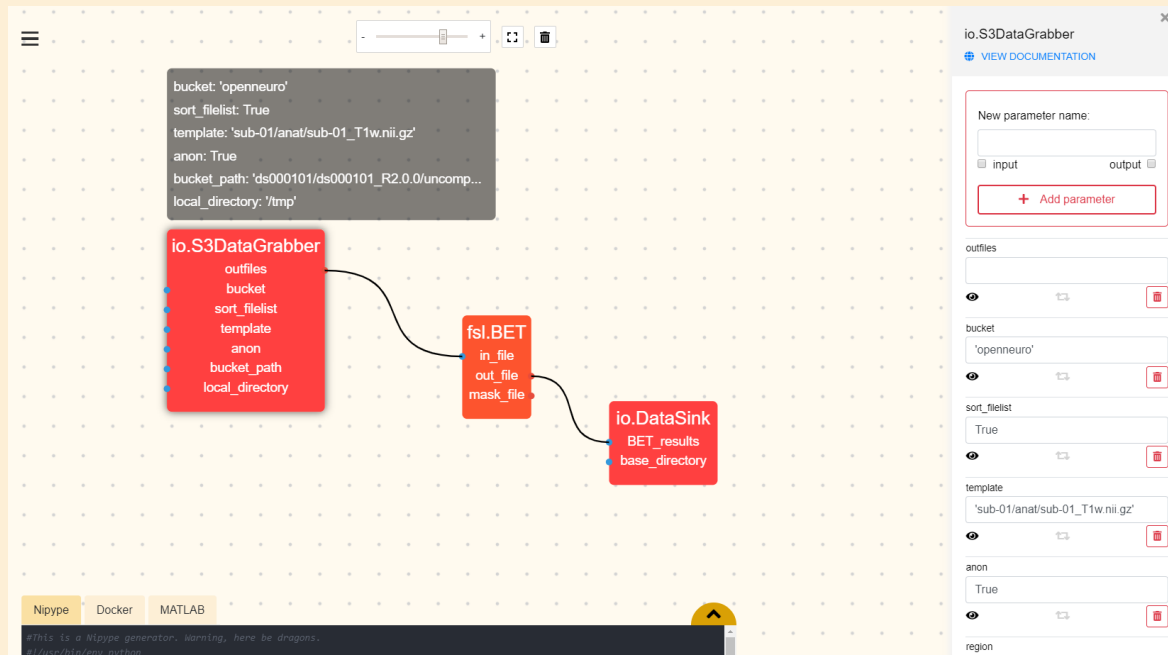Tim van Mourik, Donders Institute, the Netherlands

Me

- Tim van Mourik, PhD (Nov 2018)
- Donders Institute Nijmegen, the Netherlands
- Laminar fMRI analysis (method development)

- Porcupine

GiraffeTools

- Graphical Nipype
- GitHub interface
    - Automatically load/save pipelines from/to GitHub
- Web based

Goals & Expectation Management

- Provide end-to-end analysis pipeline
  - Reproducible pipeline
- Easier collaboration/adaptation
- Reviewable pipeline
- Representation-Implementation mapping
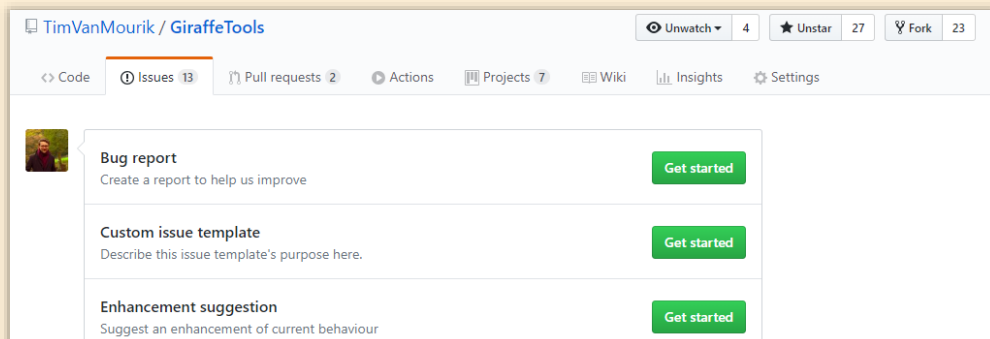 - No abstracting away of code!
- [Easier analysis]

GiraffeTools

#WorkInProgress

　@ *https://github.com/TimVanMourik/GiraffeTools*

• Quite some *Lorem Ipsum* on non-essential pages
• Low on error messages
• Some critical features still to be implemented

Request to you: *For everything that you would like to be included, please file an issue!*
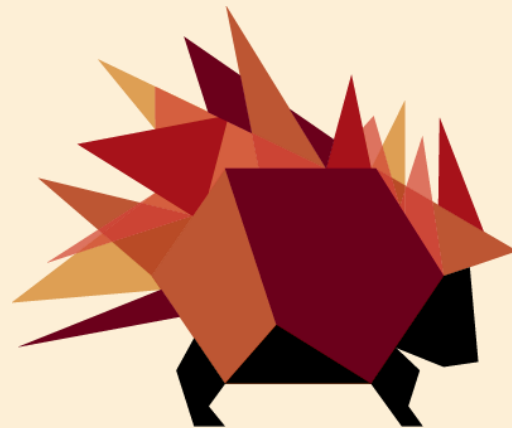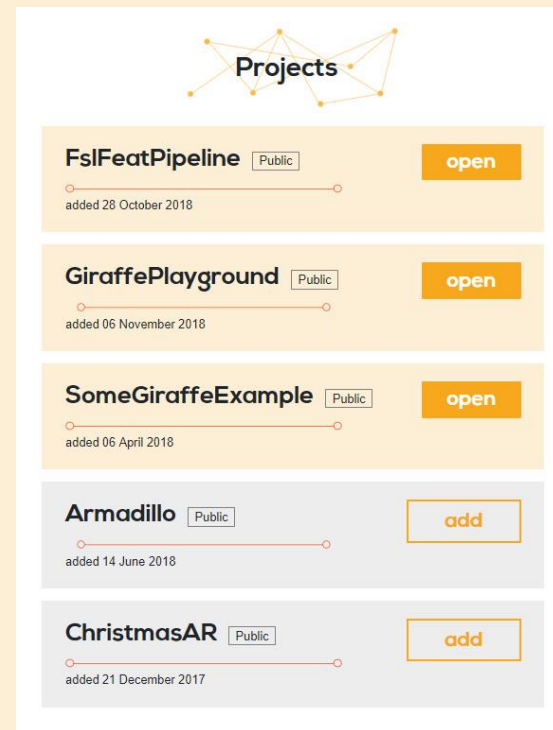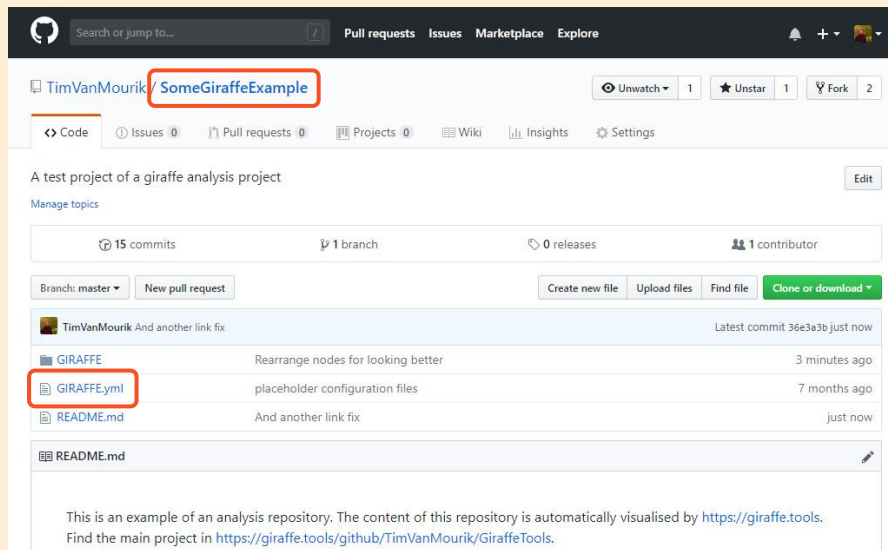
GiraffeTools

Giraffes, Porcupines & ARmadillos

- **G**raphical
    Interface for
      Reproducible
        Analysis
          For
   work**F**low
            Experiments

- *POR*cupine *C*reates *U*r Pipel*INE*

- *A*ugmented *R*eality *[madillo]*

GiraffeTools projects

- GitHub repositories are automatically loaded
  - Only requirement: **GIRAFFE.yml** file in root

Live demo

- Init GitHub project
- Init as GiraffeTools project
- Show user/project page
- Drag in modules
- Login & save project
- Show code on GitHub
- Switch to preproc project
- Sync to local
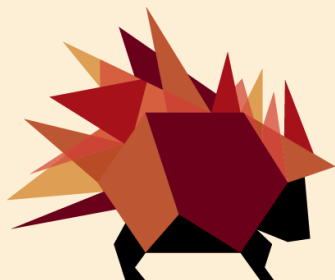- Build Docker container
- Run Docker container

Future plans

- Data visualisations
  - Connect workflow to data that flows through
  - Such as ARmadillo
- Code execution
  - Execute workflow online
- What do you need?
  - How does this fit into your daily work?
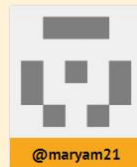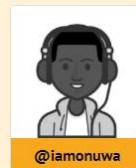 - Motivation: both scientific and utility

Contributors

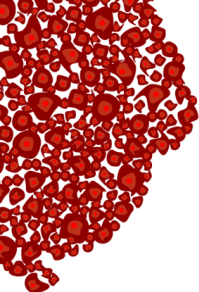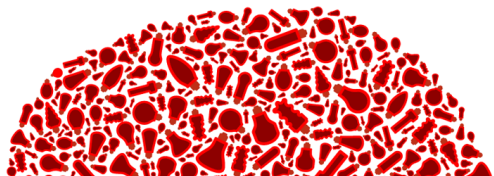## Porcupine

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GiraffeTools

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@nemaniarjun

@maryam21

@aditya-jha

@arku

@kylewu

@bscharm

@eemp

Web design:
Fuchsfabrik

Please join!
https://giraffe.tools/slack

Thank you!

Nerd info, for developers

- Container: Docker
  - Simply `docker-compose up web` to boot up the website
- Back-end: Python (Django)
  - GitHub OAuth authentication
  - PyGitHub for committing from back-end
- Front-end: React (JavaScript)
  - Bootstrap, Radium styling
  - State management: Redux, Redux-ORM
- Deployed on Heroku