UCLA QCBio Collaboratory

Python Hackathon

We are pleased to announce the **Winter Python Hackathon**, an event dedicated to **foster discussions and hands-on practice** in problems relevant to biosciences and health sciences

- Single day workshop, spent solving coding problems
- Problems intended for both **beginners** and **advanced** users
- We selected problems and will provide real datasets!

February 23rd, 9:30AM - 5:00PM
Collaboratory Classroom (Boyer Hall 529)
Lunch provided between 12:30 and 2PM

For more **information** & **registration**:
http://qcb.ucla.edu/collaboratory/hackathon

Our goal for today

UCLA QCBio Collaboratory

- Use this time to code together and exchange ideas and experiences among the participants
- Learn more about how Python is used in real-life projects applied to bio-related fields
- Collaboratory fellows will be available to help during the development of the projects

Schedule for today

Time	Event
9:30 - 10:00	Quick presentation about the Hackahton and overview of the problems
10:00 - 12:30	First coding session
12:30 - 2:00pm	Lunch while coding
2:00 - 3:30	Second coding session
3:30 - 4:00	Final remarks and **discussions about the future**

The material is currently available on
http://github.com/QCB-Collaboratory/Python-Hackathon-Winter2018

6 commits | 1 branch | 0 releases | 1 contributor

Branch: master | New pull request | Create new file | Upload files | Find file | Clone or download

thmosqueiro Added flyer — Latest commit dec300c 19 minutes ago

Resources	Added flyer	19 minutes ago
README.md	Added flyer	19 minutes ago

README.md

Python Hackathon

UCLA QCBio Collaboratory

Many of you who enjoyed the Collaboratory workshops have requested the opportunity to continue improving your computational skills beyond the workshop. We're pleased to announce a new event for those with interest in computational and quantitative methods in biology: **a Hackathon dedicated to solving problems of interest to our community**, using Python.

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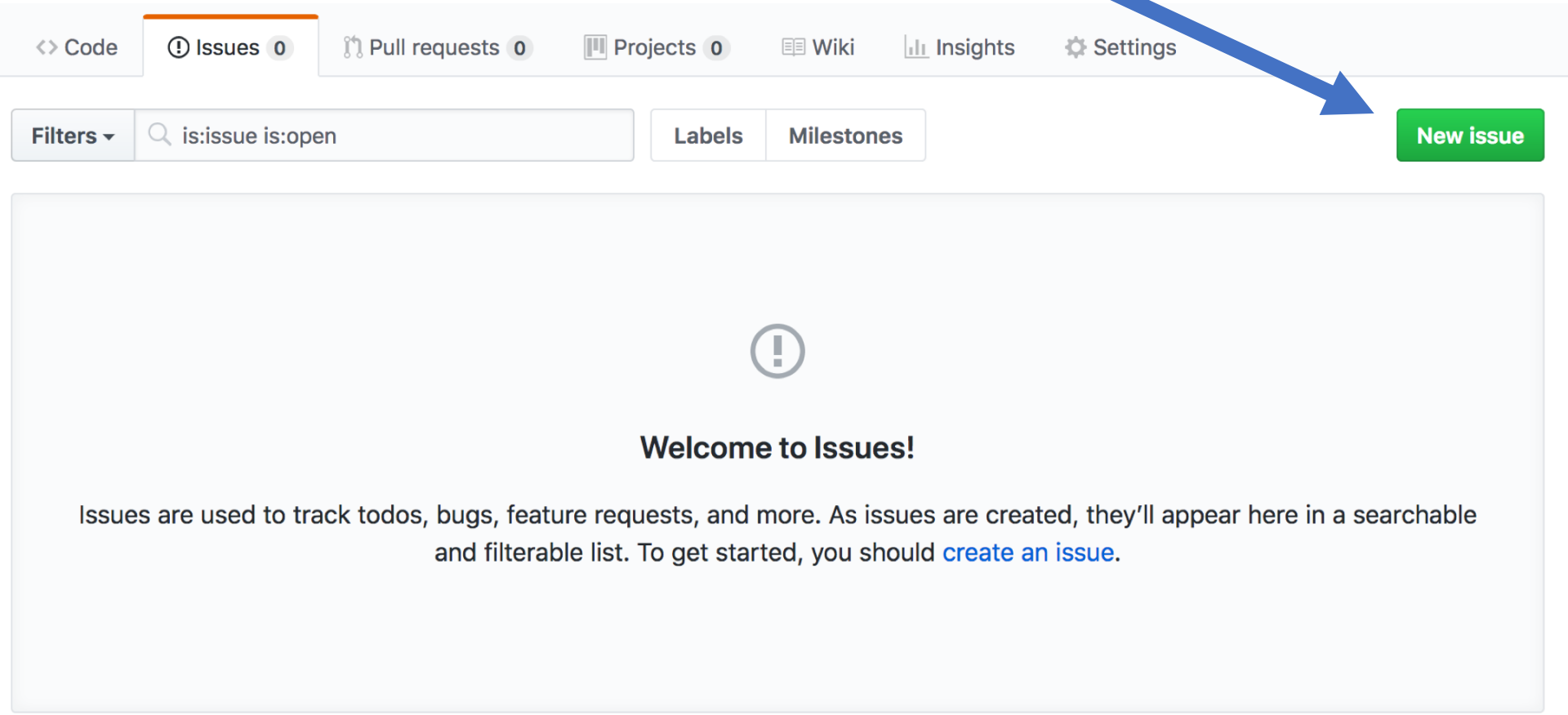
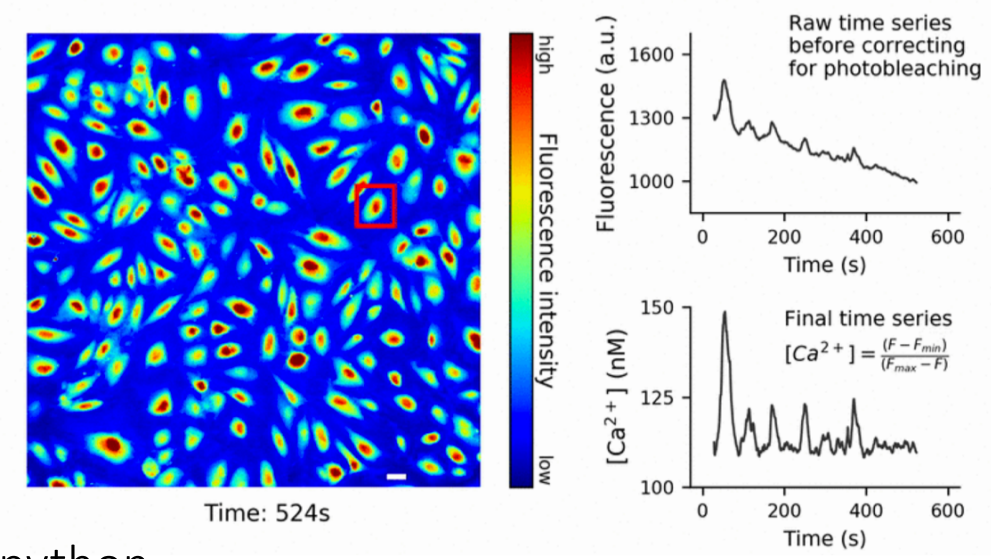
If you have some material you want to share with everyone else, use the Issues page on the GitHub.



Projects

1- Analysis of calcium imaging

- **Goal:**
  A Jupyter notebook that summarizes how we extracted calcium time series

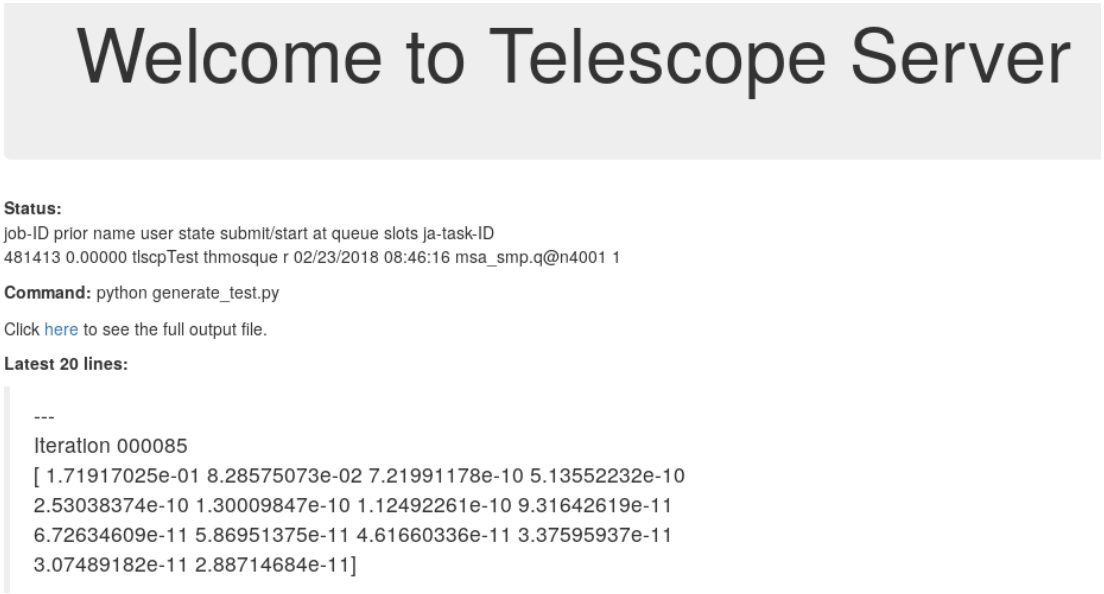


- **Technical Challenges:**
  - Handling images and videos with python
  - Dealing with photobleaching and estimating calcium concentration
  - Applying regression on a set of time series
  - Extracting statistics based on a set of cells

- **Dataset:**
  - We will use a dataset used in a recent publication by Julia Mack @ Arispe Lab

2- Work together to create Telescope

- **Goal:**
  We are creating this system that keeps track of jobs submitted to remove severs such as Hoffman2
- **In exchange:** a co-author in a future paper on this server
- **Technical Challenges:**
  - Python programming for mixed with Unix
  - A bit of Web Development



Let’s get started!