

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

- 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 Hackathon 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

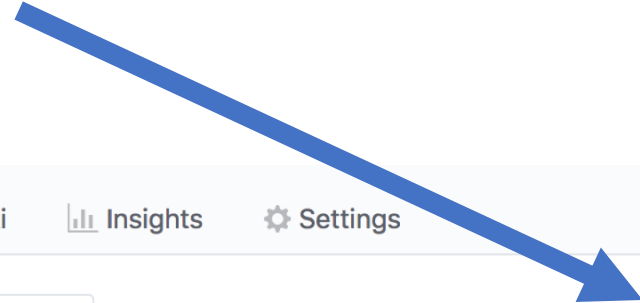
Collaboratory

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.

Table of contents

- [Where? When?](#)

If you have some material you want to share with everyone else, use the [Issues](#) page on the GitHub.

The image is a screenshot of the GitHub web interface. At the top, a navigation bar contains links for 'Code', 'Issues' (which is highlighted with an orange bar and a notification badge showing '0'), 'Pull requests' (with a '0' badge), 'Projects' (with a '0' badge), 'Wiki', 'Insights', and 'Settings'. Below this bar, there's a section for filters and search. On the left, a 'Filters' dropdown is visible. Next to it is a search bar containing the text 'is:issue is:open'. To the right of the search bar are two buttons: 'Labels' and 'Milestones'. Further right is a prominent green button labeled 'New issue'. The main content area below these elements features a large, light gray box. Inside this box, at the top center, is a circular icon containing an exclamation mark. Below this icon, the text 'Welcome to Issues!' is displayed in a bold font. Underneath the welcome message, a paragraph explains the purpose of issues: 'Issues are used to track todos, bugs, feature requests, and more. As issues are created, they'll appear here in a searchable and filterable list. To get started, you should [create an issue](#).' The word 'create' is in blue, and 'an issue' is in blue.

Projects

1- Analysis of calcium imaging

- **Goal:**

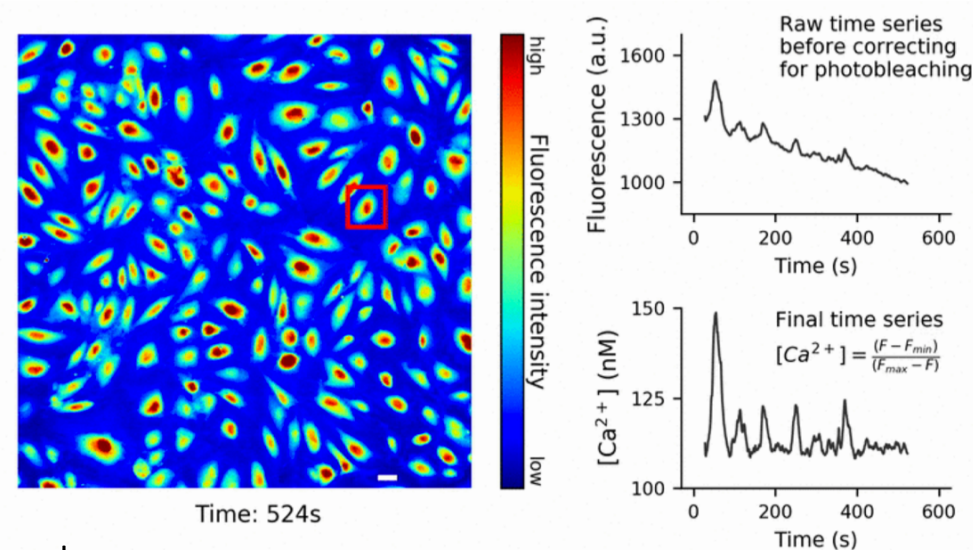
A Jupyter notebook that summarizes how we extracted calcium time series

- **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 servers 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

Welcome to Telescope Server

Status:

job-ID prior name user state submit/start at queue slots ja-task-ID
481413 0.00000 tlscpTest thmosque r 02/23/2018 08:46:16 msa_smp.q@n4001 1

Command: python generate_test.py

Click [here](#) to see the full output file.

Latest 20 lines:

```
---  
Iteration 000085  
[ 1.71917025e-01 8.28575073e-02 7.21991178e-10 5.13552232e-10  
2.53038374e-10 1.30009847e-10 1.12492261e-10 9.31642619e-11  
6.72634609e-11 5.86951375e-11 4.61660336e-11 3.37595937e-11  
3.07489182e-11 2.88714684e-11]
```


Let's get started!