Welcome to the CHOP Workshop for Analytical Code Review!

August 9-10, 2023
Childhood Cancer Data Lab
https://alexslemonade.github.io/2023-chop-training/

Childhood Cancer Data Lab X Alex's Lemonade Stand

Tell us about you!

- What's your name?

- Where are you calling in from?

- What are you studying?

- What's a recent piece of media (book, movie, TV show, etc.) you enjoyed?

Meet your instructors

Director @ the Data Lab

- Research interests include leveraging collections of heterogeneous gene expression data to learn about rare diseases

- Practitioner of analytical code review for 7+ years

- Helped build & have run our small data science team for the past 5 years

JACLYN

Jaclyn Taroni

jaclyn-taroni

Meet your instructors

STEPHANIE

Stephanie Spielman

Data Scientist @ the Data Lab

PhD Integrative Biology *UT Austin*
Postdoc Computational Molecular Evolution *Temple*

Research interests:
- **Protein & virus evolution**
- **Reproducible genomics analysis**
- **Data science and bioinformatics education**

sjspielman

Other staff you may see (or have seen already!)

JEN
Jen O'Malley
Scientific Community Manager

- Helps administer Data Lab offerings such as workshops
- Manages communications

DEEPA
Deepa Prasad
User Experience Designer

- Talks to researchers about their needs and frustrations
- Designs usable software

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Code of Conduct

Be kind, have fun

We value the involvement of everyone in the community. We are committed to creating a friendly and respectful place for learning, teaching, and contributing.

- Use welcoming and inclusive language

- Be respectful of different viewpoints and experiences

- Gracefully accept constructive criticism

- Focus on what is best for the community

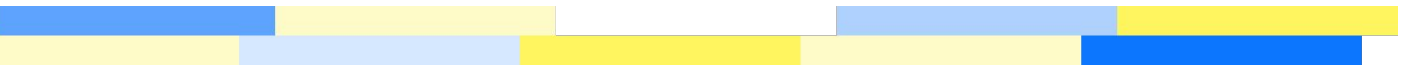- Show courtesy and respect towards other community members

Read the full Code of Conduct here:
https://alexslemonade.github.io/2023-chop-training/code-of-conduct.html

If you at any time feel harassed or treated inappropriately, please contact ccdl@alexslemonade.org.

What you will learn (and what you won't)

What you will learn

Our opinions about managing repositories, planning and tracking work with GitHub, and analytical code review, honed through 5+ years of experience at the Childhood Cancer Data Lab, but *opinions*, nonetheless.

Not everything we cover might be right for you (more on that on the next slide), but we hope you leave with new insights about what is right for you!
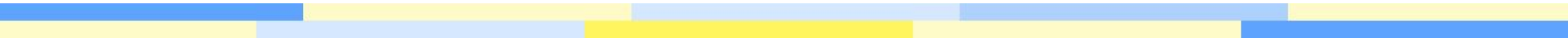
What you won't learn

- A full accounting of security considerations associated with practices we present are beyond the scope of this workshop. Please consult with experts at your institution before implementing anything new to you.

- On a related note, we do not have working knowledge of or power to set institutional, departmental, or team policies.

How do we pick what we teach?

Dr. Jo Lynne Rokita asked us to cover the following topics:

- GitHub repo maintenance
- Creating and stacking pull requests
- Code review

We're teaching you straight from our internal handbook on scientific code guidelines and best practices in some cases!

How do we pick what we teach?

We also used your survey responses (thank you for filling that out 😄) to try to identify common friction points and wrote material around how we try to address those same friction points internally.

We know we have folks with a range of experience in attendance, and we hope there's something for everyone in this material!
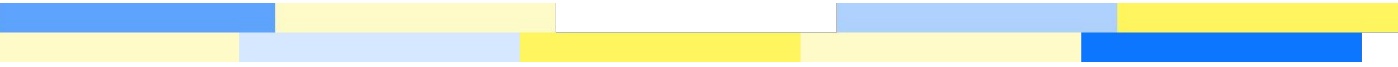
How do we pick what we teach?

We've opted to teach using `git` from the command line, rather than from GUIs (e.g. GitHub Desktop or GitKraken).

We chose this route because:

- CLI offers the most extensibility, for example you can't use a GUI on your external server
- Your survey responses indicated that most of you use `git` via command line, at least some of the time

Schedule

Wednesday

Workshop Intro

Intro git & GitHub
The fundamentals
Working with branches
Resolving conflicts

Intro to code review

Tracking & planning
with GitHub

Thursday

Code review
Author responsibilities
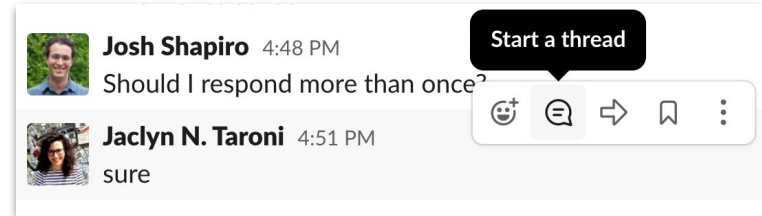Review responsibilities
Systems to facilitate review

Ensuring reasonable
PR scope

Performing and
responding to review

Full schedule: https://alexslemonade.github.io/2023-chop-training/workshop-schedule.html

![slack](slack logo)

We encourage you to use Slack

- You have been added to the **#2023-august-training** Slack channel

- Post public questions, get help with errors and debugging, make comments, and help others!

  - Use threads to keep related content together

- Stay in touch after the workshop!

How to ask questions during presentations and demos

- Please use the raise hand function on Zoom and an instructor will call on you.

- You can also send questions via chat to **Jen** directly. The person instructing is less likely to be monitoring chat.

- If a question requires more background, we'll move it to the Slack channel and answer it afterwards.