

Code Review

CMSE 890-402

What is “good” code?

Reading code

- Any programmer can review code!
- If the code is not quickly understandable, comment
- Compare the code to the style guide of the project
 - Variable names
 - Function names
 - Documentation
 - Tests

In-class assignment: Feedback on code

- Open <https://classroom.github.com/a/ATwY7IKd>
- Make a pull request from each branch to main
- In each pull request, leave review comments on the code
- Add at least 5 comments to each pull request
- You do not have to understand what the code is trying to do
- Criticize (and/or praise):
 - Variable names
 - Function names
 - Documentation
 - Tests
 - Anything else you think relevant

Homework

- **Now that we have explored how to plan and run research workflows:**
- Find an open source scientific software package with a github repository that you know or use in your work
- Write a 1-2 page report (can be bullet pointed, but **full sentences** please)
- Briefly describe the purpose of the software
- Describe and give your reasoned opinion on:
 - The repository organization (issues, projects, pull requests, branches etc.)
 - The documentation (web hosted? Docstrings for the appropriate language? etc)
 - Tests (are they present? Unit tests? Integration tests? etc)
 - The style/contribution guide (does it exist? Is it reasonable? etc)
 - Use of github actions
- Submit to D2L at midnight Wed 18th Oct. PDF preferred.

Semester project

- I have given feedback on D2L submissions
- Next steps:
 - **Create a GitHub repository for your project and invite me**
 - Respond to my and others comments on D2L if you have any questions
 - Tidy and organise your DFD
 - Commit it to your repository on a branch with an open pull request so that I can give feedback
 - Begin writing pseudocode based on your DFD
 - Commit it to your repository on a branch with an open pull request so that I can give feedback
 - **MAKE REGULAR COMMITS AS YOU WORK ON YOUR PSUEDO CODE**
- **I will leave comments on any PR in your repositories on a weekly basis, either Thursday or on Friday mornings**

Pre-class

Read this paper:

<https://www.nature.com/articles/s41586-022-04501-x>

Write a short paragraph discussing what you think FAIR data is and why it could be a useful way to think about research data.