Beronda Montgomery's *From Deficits to Possibilities* essay: <https://career.grinnell.edu/blog/2022/08/26/from-deficits-to-possibilities-mentoring-lessons-from-plants-on-cultivating-individual-growth-through-environmental-assessment-and-optimization/>

Prepare an essay, based on your own area of study, that illuminates one (or more) of the responsible conduct of research topics we have studied over the semester, in the same vein as Beronda Montgomery's *From Deficits to Possibilities* essay, which was expanded to create her book, *Lessons from Plants*. The essay should be between about 1000-2000 words. Feel free to include figures or illustrations for interest and clarity. The thesis of the essay should represent an interesting approach to the responsible conduct of research, and should illustrate an effective way to communicate or teach about that approach based on some aspect of your area of study. You should give examples that support your thesis, and your writing should be clear and concise.

Essay Topic: Week 7: Data Acquisition and Management

Writing on this topic should in some way be about my failure to truly follow good data practices because we didn’t really learn them. So thinking of a way to make it easy to teach about good data practices, AND a lot of the fun for it could be put into ideas that I have about it in the future for a potential future lab, but more realistically and closer to now:

my basketball stats website:

* What are tools that will help me stay organized when making it?
* What are the things that I feel like I’ve made mistakes on in the past?
* How can I make these things easier in the future?
* What are some punny/nice sounding titles for this idea?
* Good figures for it?
  + I think I could make a simple flowchart for ways that scientists can save their data:
    - What if it was possible to make a processing software that could instantly transform that data into a nice figure? Kind of like the way powerpoint when you put an image in, it like gets creative in placing it and shit? Like what if you could have a powerpoint like system that will take any input figures or data, and descriptions of the data, and come up with a nice visual way of seeing that data? Like something that essentially creates paper like figures for you: If you have three pieces of data in figure form and their corresponding legends, it will automatically have templates setup for how those figures could look on a paper/powerpoint and essentially double as a way of keeping notes for your project?
    - The Methods about how code would work could be interesting if I can think of clever titles for how to do it/how it overall works? Or maybe if I just have clever titles for the above idea, then that’s probably good enough without going to in depth into how the methods work (make sure that the essay doesn’t have that in depth detail into the methodology)

Paper with examples: https://riojournal.com/articles.php?id=26439

README guide: <https://data.research.cornell.edu/content/readme>

Figure of reproducibility spectrum: https://www.science.org/doi/10.1126/science.1213847