**Final Reflection Assignment for Stat 495 Due: Saturday, Dec. 17th by 11:59 pm**

This activity will allow you to reflect on your experiences in our class and how they have impacted your journey in statistics. It will also allow you to revisit your portfolio and related reflection materials from earlier this semester.

To successfully complete this assignment, you will need to:

* Put a copy of your Homework 5 write-up and your final paper in your Portfolio folder in your Github repo (to round out your portfolio)
* Review the following activities from earlier this semester:
  + The goals you set for the course in your Readmes in your repos.
  + Portfolio Review for Stat 495 (submitted on Gradescope if you need to find it fast)
  + Portfolio InClassActivity (you had as a handout which may have your comments on it, can reference electronic copy in the course repo)
  + The reflection incorporated with Homework 1 (which is in your Portfolio folder in your Github repo)
* Fill out the worksheet below (it will direct you to the above items at times) in relation to the Hmk 5 and final project assignments.
* Write a letter to me with your final responses and insights as directed below (still in this document). The worksheet should help with part of the letter.
* Submit the worksheet portion and letter to Gradescope in the Final Reflection assignment, and put a copy in your repo’s Portfolio folder.

You can delete this page and the letter instructions that are below from your final submission if you like, but it’s not necessary. You’ll just skip over them when assigning Gradescope pages anyway.

Don’t worry about the spacing or making the worksheet sections look “pretty”. I suggest bolding the skills to select the ones you want to keep or just deleting the ones that don’t apply to the respective pieces.

**Worksheet**

**Consider your Hmk 5 submission as a portfolio piece. Review it briefly / skim over it.**

1. Which of the following statistical skills are you practicing, applying, and/or demonstrating in this portfolio piece?

Descriptive Statistics Appropriate Graphical Displays

Exploratory Data Analysis Regression (of any kind)

Design Resampling Methods (Bootstrap, Randomization Tests)

Model Assessment (Comparison) Hypothesis Testing (and Sampling Distributions)

Estimation Understanding Variability

Other Statistical Methods Understanding Probability

Working with Statistical Notation / Writing Models

2. Which of the following coding-related skills are you practicing and/or demonstrating in this portfolio piece?

Data wrangling Good programming practices (comments, organization)

Reproducible workflow Understanding code syntax

3. Now let’s consider communication skills in relation to this portfolio piece. Which of the following are you practicing and/or demonstrating?

Using writing to demonstrate and help develop my understanding of new concepts

Use writing to communicate statistical knowledge and understanding to:

A teacher

My classmates / peers

A non-expert audience

The ability to make a clear, convincing, coherent, well-organized argument

Present ideas in a logical order with an appropriate narrative thread

Provide sufficient interpretation/explanation of figures/graphics

Provide an appropriate amount of supporting evidence without too much extraneous information

Provide a conclusion that summarizes your findings, their importance and implications, and sets forth proposals for future work

4. What do you consider as the strengths of this portfolio piece?

5. What do you consider as the weaknesses of this portfolio piece?

**Consider your final report submission as a portfolio piece. Review it briefly / skim over it.**

1. Which of the following statistical skills are you practicing, applying, and/or demonstrating in this portfolio piece?

Descriptive Statistics Appropriate Graphical Displays

Exploratory Data Analysis Regression (of any kind)

Design Resampling Methods (Bootstrap, Randomization Tests)

Model Assessment (Comparison) Hypothesis Testing (and Sampling Distributions)

Estimation Understanding Variability

Other Statistical Methods Understanding Probability

Working with Statistical Notation / Writing Models

2. Which of the following coding-related skills are you practicing and/or demonstrating in this portfolio piece?

Data wrangling Good programming practices (comments, organization)

Reproducible workflow Understanding code syntax

3. Now let’s consider communication skills in relation to this portfolio piece. Which of the following are you practicing and/or demonstrating?

Using writing to demonstrate and help develop my understanding of new concepts

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Provide an appropriate amount of supporting evidence without too much extraneous information

Provide a conclusion that summarizes your findings, their importance and implications, and sets forth proposals for future work

4. What do you consider as the strengths of this portfolio piece?

5. What do you consider as the weaknesses of this portfolio piece?

**Review your earlier portfolio work (the prior worksheet, in-class activity, and Hmk1 portfolio reflection) and your stated goals for the course (Readme and reflection) and the responses to the new portfolio pieces above.**

1. What skills have you developed or feel you demonstrated well this semester? Do these skills align with your stated goals from earlier this semester?

2. Reflect on your journey through the course. What did you learn this semester (through these assignments and our coursework) about statistics, statistical thinking, and writing in statistics?

3. Describe a moment during the semester where you felt an idea or concept “clicked” for you. What was the idea/concept (statistical or writing related) and what transpired in the moment it “clicked”?

4. We engaged in several activities to support your writing for the report, ranging from class discussions of statistical papers, to trying out SMART goals in class. How did these activities (broadly speaking) inform your writing this semester, particularly on the final paper?

**Letter Instructions**

**Purpose:**

In this letter, I hope to learn about your journey through the course and progress made towards your goals for the course that you set way back when you created your repos (remember those?) and the goals made in your Hmk 1 reflection.

I also hope you’ll share examples of what you learned about writing that went well (allowing you to demonstrate you learned it) as well as a challenge you encountered working on the final paper and how you got through it.

Finally, I hope to learn about your perspective of your portfolio, what you are proud of in it, and whether it is an accurate reflection of your progress as a statistics major at Amherst.

**Specifics:**

Kristen from the writing center suggested a letter format would work well for this, so let’s try it out! Remember to start with the date and a greeting, try to show your ideas with sufficient detail that I can really understand, perhaps even picture what you are saying, and don’t forget a closing!

Within the letter to me, be sure to craft a narrative that allows you to:

* Re-express the goals you set at the start of the semester (in your repo Readme and reflection for Hmk 1).
* Describe the progress you made towards achieving those goals over the course of the semester.
* Describe two things you learned about writing and illustrate them with examples from our assignments.
* Describe a challenge you encountered while writing for the final paper and how you got through it.
* Reflect on the portfolio now as a whole and comment on how it shows your development as a statistics major at Amherst. Is it complete? Is there anything else you’d like to add to it before you graduate? (Some items may not be written yet.)
* Be sure to include one thing you are proud of when considering your overall portfolio. This could be anything ranging from demonstrated improvement in writing, to having multiple examples to showcase your abilities, to getting through an exposition on a new topic.
* Before closing, what are your next adventures in the realm of statistics? Are you taking any statistics courses next semester? Going into a data analytics position? Etc.

**Craft a response, rather than responding to the bullet points.**

**Assessment:** The worksheet is graded on completion and earnest effort. The letter is graded similarly, with responses to the above bullets in narrative form and required letter structure (date, greeting, closing) as the parts that need to be completed.

I hope the letter provides a good opportunity for reflection on everything you’ve learned this semester!

**Letter**