

Portfolio Reflection

My statistical skills have improved a lot over time. I had never taken a Statistics class prior to joining Amherst college, so when I joined STAT 135 during my freshman year, it was all new to me. Despite it all being new, however, I gained a deep appreciation and understanding of the field and as I have continued to take more classes and practice the concepts in application areas, my skills have greatly improved. Over time, I have gained a better understanding of different statistical tools and methods as well as when they would be most applicable. I now have a wealth of information on how to undertake statistical analysis, from as simple as formulating a well-defined question, designing my analysis, performing exploratory data analysis, and modeling. However, statistics is not just about the models, but also the application of those models, and so interpretation is a very important skill to have. As such, my statistical writing skills have really improved and I'm now able to articulate results in a clearer and more concise way.

The skills I have a solid grasp for are R, data visualization, exploratory data analysis, and design. I also have a good understanding of which statistical methods might be best suited for different types of problems. However, I am not so comfortable with coming up with the R code for all the different functionalities. That's something I would like to improve on.

Therefore, I have 3 main goals that I would like to work on improving in future statistical reports/ work. First, I would like to finetune my theoretical understanding of the various statistical tests. I believe this can help me gain knowledge in which situations certain approaches are more suitable than others. Second, I would like to get more practice generating R code without guidance as that will allow me to really synthesize different functions, how they are used, and when they are appropriate. Finally, I would like to gain a thorough understanding of output interpretation, especially for ANOVA and logistic regression.