

Cole Hon

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Dr. Martin
500 College Hill,
Liberty, Missouri

Dear Dr. Martin,

As a Senior at William Jewell College, this time of the year is pretty hectic. Between applying for jobs, course planning for my last semester, and simply coming to the realization that I actually am going to be fully immersed in the real world in a little over 5 months, I have put what I've learned in DTS 350 on top of all the chaos. Through what I've viewed on the descriptions of job postings, statistical analysis and data visualization using R is a critical requirement in the work force.

There are multiple techniques and key concepts that I've learned over the course of the past semester that make up my knowledge of R. One of the most important technical actions, which happens to be one of the easiest as well, is reading in files as temporary (temp) files! Temp files allow the user to run a file through R without having to download it on their device, so if a user is running a huge file, it won't take up space on their computer. Another technique I learned was using ggplot! The use of the ggplot package came into play for almost every assignment. The ggplot package is what one uses if want to create a visualization from their data as it includes visualizations such as bar charts, stacked bar charts, clustered bar charts, point graphs, line graphs histograms, and more. When using ggplot, the code for it can be layered. Each layer adds something to the visualization whether it be a color, titles, or positions and sizes of titles. The most basic use of a ggplot function would include two layers, the first being function being using along with the specifics of the data being used, and the second layer being the type of chart that the data will be visualized through. Taking ggplot one step further, I like to use ggplotly to create a more immersive visualization. Ggplotly allows a user to interact with visualizations. An example of that would be a point graph that allows a user to hover over each individual point with their cursor and have a box pop up listing all of the data for that specific point on the chart. Again, ggplotly can provide a deeper understanding of what the visualization is communicating. With R being such a popular tool in the workforce, I only hope to build my absolute knowledge of it through experience. Mastering the use of map building with the sf package is a goal of mine moving forward. I had technical problems with it on my computer during the semester, so I didn't get to use it as much as I'd like. I see potential applicable uses of creating map visualizations so getting to be able to use that package in efficiently would be a great addition to my repertoire

Taking into consideration of techniques learned along with the coursework I completed, I believe I should receive an A in this class. The reason behind that grade is that I have completed 17 tasks on time, 12 case studies (10 of which were on time), along with three leads. I completed a majority of the course work, as well as attended every class (except for one).

Through my knowledge, skills, and completed course work, I do believe that I would be a good fit to receive an A in this course. I hope to be in touch with you in the coming week about my grade and the conclusion of the semester.

Sincerely,

Cole Hon