STAT 794: Statistics Communication in Data Science Professor Levine

The goals of peer review are 1) to help improve your classmate’s paper by pointing out strengths and weaknesses that may not be apparent to the author, and 2) to help improve your own editing skills.

*Instructions:* Read the papers assigned to you twice, once to get an overview of the paper, and a second time to provide constructive criticism for the author to use when revising his/her paper. Answer the questions below. Please submit separate pdf documents of your responses to the questions below for each DAR you evaluate.

*Organization*

1. Were the basic sections (Introduction, Methods, Results, Conclusion) adequate? If not, what is missing?

The basic sections (Introduction, Methods, Results, Conclusion) were adequate. I like the details of each section. In addition, results section has more subheading like model selection, model diagnostics, model prediction performance, and final model labeled clearly. This helps the readers to follow the analysis more by separating each section clearly.

1. Was the material ordered in a way that was logical, clear, and easy to follow?

I like the order of this report. It was ordered in a way that was logical, clear, and easy to follow. I can see that for exploratory section, you first analyzed the target variable, then the predictors. Similar to the results section, you did a great job in organizing each step.

1. Could the clarity or efficiency be improved by changes in the order of the paper? Are there portions of the text that could be omitted?

The paper’s organization is excellent. There is no need to change any order of the paper to improve the clarity and efficiency of the paper. Good job in the organization part.

*Grammar and Style*

1. Were there any grammatical or spelling problems?

There were no noticeable grammatical or spelling problems. Good job in making sure most of your words and sentences are correctly written.

1. Was the writer’s writing style clear? Were the paragraphs and sentences cohesive and logically exposited? Briefly provide specific examples for your response.

The writer’s writing style is somewhat clear. The paragraphs and sentences were somewhat cohesive and logically exposited. The author uses too much column names to discuss the topic and details of the paper. If I am not familiar with the project, I would be confused through out most part of the paper since the author use dcaps, dpros, etc. instead of real words. I know the author explained the column names in the beginning, but I can imagine the readers, who are not familiar with this project, would be confused.

*Content:*

“Explain” may be interpreted as “What is missing?” and “What could be deleted?” and “What is accomplished well?”

1. Did the writer adequately state the problem and place it into context? Explain.

The writer did adequately state the problem and place it into the context. In the introduction paragraph, I can see a clear problem that we are currently having, and an objective of this analysis was being prosed. Good job in this section!

1. Did the writer successfully use tables and figures to clarify the exposition and forward the story line? Were figures or tables improperly/incompletely labeled or captioned, or not appropriately cited/interpreted in the text? Be specific.

I think the tables and figures captions are not labeled clearly. If there are more details in the captions, I would be able to understand the figures/tables more. In addition, some part of the paragraph like the modeling section would need some tables/figures to prove the writer’s argument. For example, it would be nice to include a table of comparable AIC scores for each model the authors have mentioned in the text. With the table, the readers can be able to compare and understand more about why the author choose the final model.

1. Were model choices well justified? Were the inferences drawn appropriate from the chosen model? Explain.

Like I mentioned on number 7. I think the model is well justified for the final model. However, the author might need to add more tables for the audience to be convince that the final model with three variables (psa, gleason, and dpros) was the best. In addition, the model with interaction terms are briefly explained why it is not a good model compare to the final model.

1. Did the writer adequately interpret inferences and accurately summarize results? Explain.

The writer did a great job in this section. The writer adequately interprets inferences and accurately summarize the results in the last section of the results section. A brief interpretation of each variables was discussing in this section. Good job.

1. Does the abstract *concisely and clearly* summarize the whole data analysis project, including the findings? What could be added or deleted?

The executive summary section was concisely and clearly summarizing the whole data analysis project, including the findings. I really like how the author started out by introducing the common of prostate cancer. Then, the author stated the problems and the objective of the data analysis along with the results of the data analysis. Good job!

*Overall summary:*

1. Which part of the paper is the most effective? *Why?*

The most effective part of this paper is the model prediction performance and the final model interpretation. The author did a good job in proving the final model could predict accurately by providing the AUC, accuracy, sensitively, and specificity of the model. Not only providing the number, but the author also provides a brief description of what each number mean. In addition, the interpretation of the models was also very clear. The author provided the impact of each variable in the model along with their confident interval.

1. Which part of the paper is the least effective? *Why?*

The least effective part of this paper is the figures. Some figures are not well described in the analysis leading to a difficult understand of why the figures are there. For example, the exploratory analysis figures are hard to looked at without a brief description of each feature in the figures. In addition, the relationship of each variables with the response variables was briefly describe making the readers harder to connect the figures with the text.