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?

Basic sections (Introduction, Methods, Results, Conclusion) were somewhat adequate. There is enough information to cover each section’s purpose. Executive summary needs more information of the model. Introduction needs more details and context of the problem and objective of the model.

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

The material was ordered a way that was logical, clear, and easy to follow. The paragraphs are short and easy to understand each paragraph. Make sure you choose to have all indented or all not indented paragraphs. Since you have some paragraphs that are indented and some that are not indented.

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 organization of the paper is well organized. Therefore, there is no need to make any changes in order of the paper to improve the clarity or efficient of the paper. All information in this analysis are good, no need to delete any portions of the text that could be omitted.

*Grammar and Style*

1. Were there any grammatical or spelling problems?

Overall, there is no noticeable grammatical or spelling problems. Good job in this section. When I read this analysis, I did not get distracted by the grammatical or spelling errors.

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

Overall, the writer’s writing style is clear. The paragraphs and sentences cohesive and logically exposited. For example, all words the authors used are easy to understand and there is no big technical term that a wide audience could not understand except AIC and BIC. However, the authors use column names to describe each variable including dcaps, dpros, etc without initially explain what they are. With this being said, the audience might be lost when the author mention a variable without knowing what the variable is or stand for.

*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 author briefly described the problem and place it into context. In the introduction paragraph, the author only discusses the goal of this analysis. However, there is no problem stated in the introduction paragraph. In addition, the objective of this data analysis is unclear.

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.

The author did a good job in labeling and explaining what the figures and tables are showing. However, I would suggest the author to rename the x and y axis title of the figures to make it more readable to a wider audience. In addition, the figures have different font size. I would suggest customizing the plots to have the same text size to make the paper looks more aesthetically pleasing.

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

The model choice was well justified. The author did a good job in explaining the different between each model. In addition, a table of model comparison with AIC, AICc, and BIC scores were provided for both models to compare. This way, the readers would have a better understanding of why the author choose a certain model over the other model. However, there are no section to prove how well the model was fitted.

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

The writer did adequately interpret inferences and accurately summarize results. I like how the author put the formula of odd ratio and compute an example of odd ratio in the model. This helps the audience understand how the author get the odd ratio from. However, the part where the author bins the subject to assess the quality of the model was a bit confusing. I am not sure how the author bins the subject and where is the cut off for each bin.

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

The abstract/executive summary somewhat concisely and clearly summarize the whole data analysis project. However, there is no findings including in the executive summary. It would be nice to see some significant/highlighted findings in the abstract.

*Overall summary:*

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

The exploratory part of the paper is the most effective. I like how the author clearly describe each variable and describe the plot that is represent the relationship between predictors and response variable. This helps the readers understand why the author choose a certain variable to be the model and why the author exclude some variables. In addition, this also helps the readers follow the author’s text and figures more collaboratively.

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

The part that is the least effective is the diagnostic section. The author spends a little time to briefly describe the quality of the model using residuals and Cook’s distant. However, the author did not spend time on analyzing the outliers/leverages much. In addition, like I mentioned before, the bins of the diagnostics section were a little bit confusing. Therefore, a little more information/explanation would be nice.