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?

All sections (Introduction, Methods, Results, Conclusion) are well written and easy to understand. However, for introduction section needs more details of your objective and purpose of the analysis and the method section needs more explanation of the dataset. For example, discuss if there are any missing values present in the dataset and if you decided to remove them or not, etc.

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

The material was ordered in a way that was logical, clear, and easy to follow. Each paragraph was organized neatly with topic sentences on the first line of the paragraph. Good job!

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 efficiency of the paper is excellent. There is no need to improve in this part. However, the clarity could use some improvement to explain more about each method and step. I feel like the exploratory section and modeling section is too rush.

*Grammar and Style*

1. Were there any grammatical or spelling problems?

There are some grammatical and spelling problems in the paper. However, they are not distracting. Overall, grammatical and spelling problems are not a big issue in this analysis. But it would be nice to just read the paper one more time to fix the minor details.

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 was clear. There were no paragraphs and sentences cohesive and logically exposited. For example, the paragraph was organized with a topic sentence and clear transition which make the readers easier to understand that the author is switching to a different topic. Good job!

*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 clearly introduced prostate cancer is one of the most common disease in male. However, there is no clear purpose of this analysis or why the tool is being built.

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.

There are sufficient figures and tables that support that author’s argument and results of the modeling process. However, the first figure on the exploratory analysis were too difficult to look at. I would suggest choosing a couple of figures instead of all six. I would also suggest increasing the font size of the y and x axis title. In term of tables, I would suggest explaining the context of each column. For example, in table 1, you can say first column is the features in the model, second column is the coefficient estimate, etc.

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

The model choices were somewhat justified. I would suggest dedicating more time in explain the model with interaction terms since professor specifically request for it. For the variable exploratory, I would recommend you to discuss more about why you think PSA, DRE, and Gleason would be good candidate for the model instead of focusing only on why age and race would not be good candidate for the models.

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

The writer adequately interpreted the inferences and accurately summarize the results. Good job in this area.

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

The abstract somewhat summarize the whole data analysis project, including the findings. For the part where you stated the finding of digital rectal exam, be sure to put your baseline/reference level on it. For example, right unilobar nodule is 4.7 times mor likely to have capsular penetration then no nodule. In addition, I would suggest adding the purpose/objective of the analysis.

*Overall summary:*

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

The paper overall is well written and easy to follow and understand. All figures and tables support the analysis and results of the analysis. I really like the transition between paragraph and section which make the readers follow the paper easier when the author talks about a new topic. Good job!

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

The least effective part of the paper is the exploratory analysis. Likely I said before, you focus too much on why you would exclude the variables rage and age. Instead, you can spend more time talking about why you choose to have the features (PSA, DRE, and Gleason score) in your models. Since the paper is the summary/report of your significant findings, there is no need to include insignificant variables in the report. It is just my opinion; you don’t have to take my advice if you think I am incorrect.