

Review by ISZ_2 for ISZ_7

Reviewers:

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Score:

26/27 points

96%

1. Problem formulation

[5/5 pts]

- Is the problem clearly stated
The problem has been clearly stated with basic rules of LoL described 1 pt
- What is the point of creating model, are potential use cases defined
Potential use cases have been provided (E-Sports betting, performance analysis, player improvement, game development stats) 1 pt
- Where do data comes from, what does it contain
Data comes from Kaggle and contains data from game matches 1 pt
- DAG has been drawn
DAG is present in the report and includes data mentioned in problem formulation 1 pt
- Confoundings (pipe, fork, collider) were described
Pipes, forks and colliders were listed 1 pt

2. Data preprocessing

[2/2 pts]

- Is preprocessing step clearly described
Preprocessing steps have been described 1 pt
- Reasoning and types of actions taken on the dataset have been described
Actions taken on the data have been listed in a clear manner 1 pt

3. Model

[3.5/4 pts]

- Are two different models specified
There are two models, that use different variables 1 pt
- Are differences between two models explained
Differences between models were neatly described at the end of the paragraph 1 pt
- Are the differences in the models justified (e.g. does adding additional parameter makes sense?)
Changes in models are justified – second model is an upgrade to the first one, with four additional input variables 1 pt
- Are models sufficiently described (what are formulas, what are parameters, what data is required)
Formulas in the model could have been described more clearly. In the current form there is no description nor association with code for some of the used symbols (e.g. “y”, which probably means output but it is not explicitly stated) 0.5 pt

4. Priors	[4/4 pts]
<ul style="list-style-type: none"> Is it explained why particular priors for parameters were selected <i>Yes, with detailed explanation</i> 	1 pt
<ul style="list-style-type: none"> Have prior predictive checks been done for parameters (do parameters simulated from priors make sense) <i>Yes, prior checks have been shown</i> 	1 pt
<ul style="list-style-type: none"> Have prior predictive checks been done for measurements (do measurements simulated from priors make sense) <i>Yes, prior checks have been shown, the distribution is understandable (win/lose prediction)</i> 	1 pt
<ul style="list-style-type: none"> How prior parameters were selected <i>The reasoning for parameters selection has been provided</i> 	1pt
5. Posterior analysis (model 1)	[3.5/4 pts]
<ul style="list-style-type: none"> Were there any issues with the sampling? if there were what kind of ideas for mitigation were used <i>Issues with sampling have been resolved thanks to standardization of data</i> 	1 pt
<ul style="list-style-type: none"> Are the samples from posterior predictive distribution analysed <i>There are many numerical (accuracy scores) and graphical (probability and false prediction plots) but they lack some form of textual explanation of the presented values.</i> 	0.5 pt
<ul style="list-style-type: none"> Is the data consistent with posterior predictive samples and is it sufficiently commented (if they are not then is the justification provided) <i>The samples are mostly consistent with the data, as it has been stated by the authors</i> 	1 pt
<ul style="list-style-type: none"> Have parameter marginal distributions been analysed (histograms of individual parameters plus summaries, are they diffused or concentrated, what can we say about values?) <i>It has been shown that parameters narrow themselves during fitting model with data</i> 	1 pt
6. Posterior analysis (model 2)	[4/4 pts]
<ul style="list-style-type: none"> Were there any issues with the sampling? if there were what kind of ideas for mitigation were used <i>Issues with sampling have been resolved thanks to standardization of data</i> 	1 pt
<ul style="list-style-type: none"> Are the samples from posterior predictive distribution analysed <i>Predicted samples have been described both numerically and textually.</i> 	1 pt
<ul style="list-style-type: none"> Are the data consistent with posterior predictive samples and is it sufficiently commented (if they are not then is the justification provided) <i>As stated by authors – predicted samples haven't changed much compared to Model 1 (what is also shown by accuracy scores)</i> 	1 pt
<ul style="list-style-type: none"> Have parameter marginal distributions been analysed (histograms of individual parameters plus summaries, are they diffused or concentrated, what can we say about values?) <i>It has been shown that parameters narrow themselves during fitting model with data</i> 	1 pt

7. Model comparison

[4/4 pts]

- Have models been compared using information criteria
Comparison of models has been provided 1 pt
- Have result for WAIC been discussed (is there a clear winner, or is there an overlap, were there any warnings)
Results for WAIC have been thoroughly discussed. 1 pt
- Have result for PSIS-LOO been discussed (is there a clear winner, or is there an overlap, were there any warnings)
Results for LOO validation have been thoroughly discussed 1 pt
- What's the model comparison discussed? Do authors agree with information criteria? Why in your opinion one model better than another
Both models achieved similar accuracy, with Probit being just marginally better than simpler Logit model. That is why authors declared Logit model as the generally better one for practical use. 1 pt