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Executive Summary

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This analysis was conducted to discover strengths and weaknesses in the Jacksonville Jaguars 2019 season. Finding these strengths and weaknesses may help determine which coaching positions need to be reevaluated, what schemes may need more work, and what players to search for in the next draft.

The methods of analysis included PCA dimension reduction, Bayesian modeling, K-Means clustering, and silhouette analysis. The data used to conduct the analysis was from a third-party site which scraped the 2019 play-by-play data from nfl.com. This link will take you directly to the github repository used (<https://github.com/ryurko/nflscrapR-data>).

The findings are displayed in the table below:

|  |  |  |  |
| --- | --- | --- | --- |
| Passing Offense | Passing Defense | Rushing Offense | Rushing Defense |
| * More success occurred when throwing the ball deep. * More first downs when playing away. * Throw to the right much more when playing away. | * + Weak against passes to the short middle   + Weak against passes not from shotgun   + Weak against short left passes on third down, especially when home   + Very strong against short passes to the right   + Strong against deep outside passes | * + Scramble too much on third downs without great success   + More first downs when running in away games   + Weak on the edges   + Strong at the tackle and guard gap | * + Weak edge rush, especially to the left   + Weak right tackle gap   + Good at preventing first downs in the guard gaps. |

Recommendations based on the above findings:

* Make the Quarterback more comfortable in the pocket due to his success throwing it deep. We also do not want him hurt by running it so often. Maybe find some offensive linemen in the draft to add more protection.
* Linebackers appear to be a weakness in both the run (gap play) and pass (passes in the short middle). Either the linebackers coach needs to be evaluated or we need to direct our attention towards new players.
* Find ways to get more fans to the stadium. The team appears to play better when away likely due to not enjoying playing at home.