

# Unit 4: Assignment

Due: Sun Apr 13, 2025 11:59pm

80 Points Possible

Attempt 1



In Progress

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# ASSIGNMENT



## Directions

Take the dataset from last week and re-run the analysis using tree-based models. Include the following:

- A bagging model, such as Random Forest or Extra Trees.
- A boosting model, such as XGBoost, LightGBM, or Catboost.
- A SHAP plot of one bagging model and one boosting model. Discuss the differences in the SHAP values.
- A partial dependence plot of the same feature (ideally, one that is important per SHAP) for both a bagging model and a boosting model. Discuss the differences between the two plots.
- Please show all your code.



## Criteria for Success

- You can reference the attached rubric that I will use to grade this assignment. As always, let me know if you have questions!

- Due Sunday, 11:59 p.m., CT.

✓ **View Rubric**

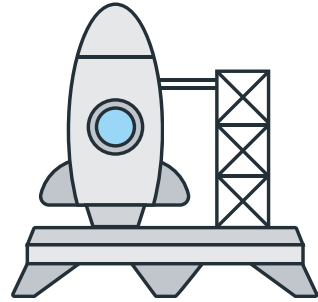
Assignment Rubric				
Criteria				Points
Content organization and relevance	<b>Excellent</b>	<b>Average</b>	<b>Insufficient</b>	/30 pts
	Content is well organized and relevant to the assignment.  25.1 to 30 pts	Content organization has minor issues; or/and minor parts of the assignment are missing.  15.1 to 25 pts	Content is poorly organized, or irrelevant to the assignment.  15 pts	
Writing and APA style	<b>Excellent</b>	<b>Average</b>	<b>Insufficient</b>	/10 pts
	The content is well-written, sources are properly referred in APA style when applicable.  7.1 to 10 pts	The content has minor writing issues, or there are minor issues with reference formatting.  5.1 to 7 pts	The writing is poor. APA format is ignored when applicable.  5 pts	
Methodology	<b>Excellent</b>	<b>Average</b>	<b>Insufficient</b>	/40 pts
	Methodology appropriate for the task has been fully followed  30.1 to 40 pts	Minor issues with the methodology  20.1 to 30 pts	Major issues with the methodology  20 pts	

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