

Analysis Review

1. Logistic Regression:

Categorical Features: *member_casual* , *season*

Continuous Features: *TMAX*

Target Variable: *rideable_type*

NaN Values: dropped all the rows with null values

Logistic Regression Accuracy: 0.64

Logistic Regression Confusion Matrix: $\begin{bmatrix} 1661458 & 0 \\ 948894 & 0 \end{bmatrix}$

The model correctly predicted the negative class (possibly 'non-bike') 1,661,458 times. The model incorrectly predicted the negative class 948,894 times when it should have predicted the positive class. The model did not correctly predict any true positive cases (possibly 'bike'), indicated by the 0 in this cell.

Categorical Features: *member_casual* , *season*

Continuous Features: *TMAX*

Target Variable: *rideable_type*

NaN Values: Handled NaN Values.

Logistic Regression Accuracy: 0.53

Logistic Regression Confusion Matrix: $\begin{bmatrix} 660353 & 1005389 \\ 615642 & 1134883 \end{bmatrix}$

The model has a fairly balanced distribution of predictions across the positive and negative classes but with substantial error rates. The model struggles to do so accurately, indicating potential issues with feature selection.

Categorical Features: *member_casual* , *day_of_week*

Continuous Features: *TMAX*

Target Variable: *rideable_type*

Logistic Regression Accuracy: 0.64

Logistic Regression Confusion Matrix: $\begin{bmatrix} 1661307 & 151 \\ 948781 & 113 \end{bmatrix}$

