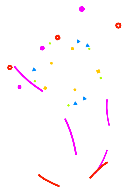
Sentiment Analysis

This app predicts the sentiment of restaurant reviews!

Enter a review

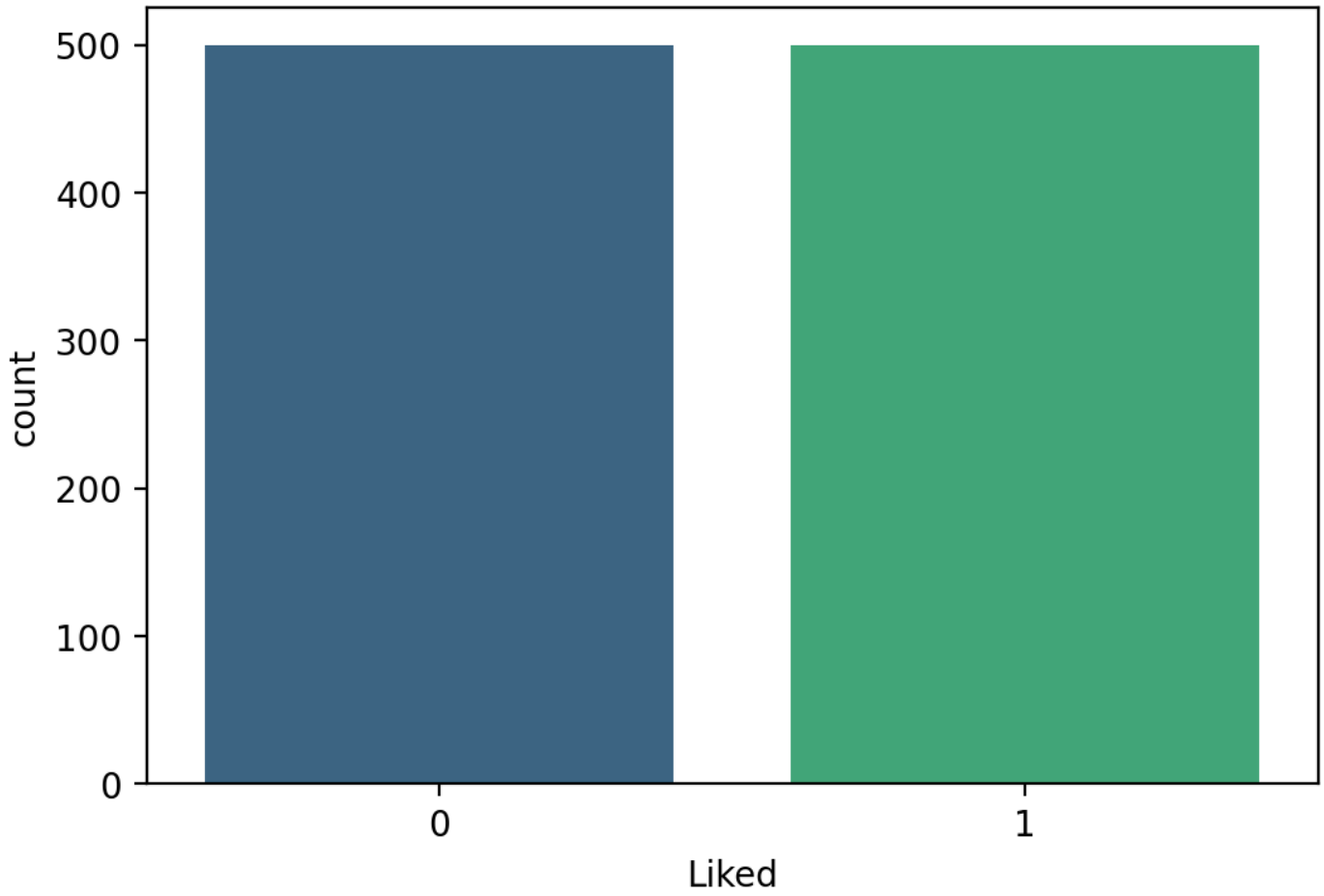
Best dining experience I've had in a long time. The ambiance was perfect, and the dessert was heavenly.

Predict Sentiment



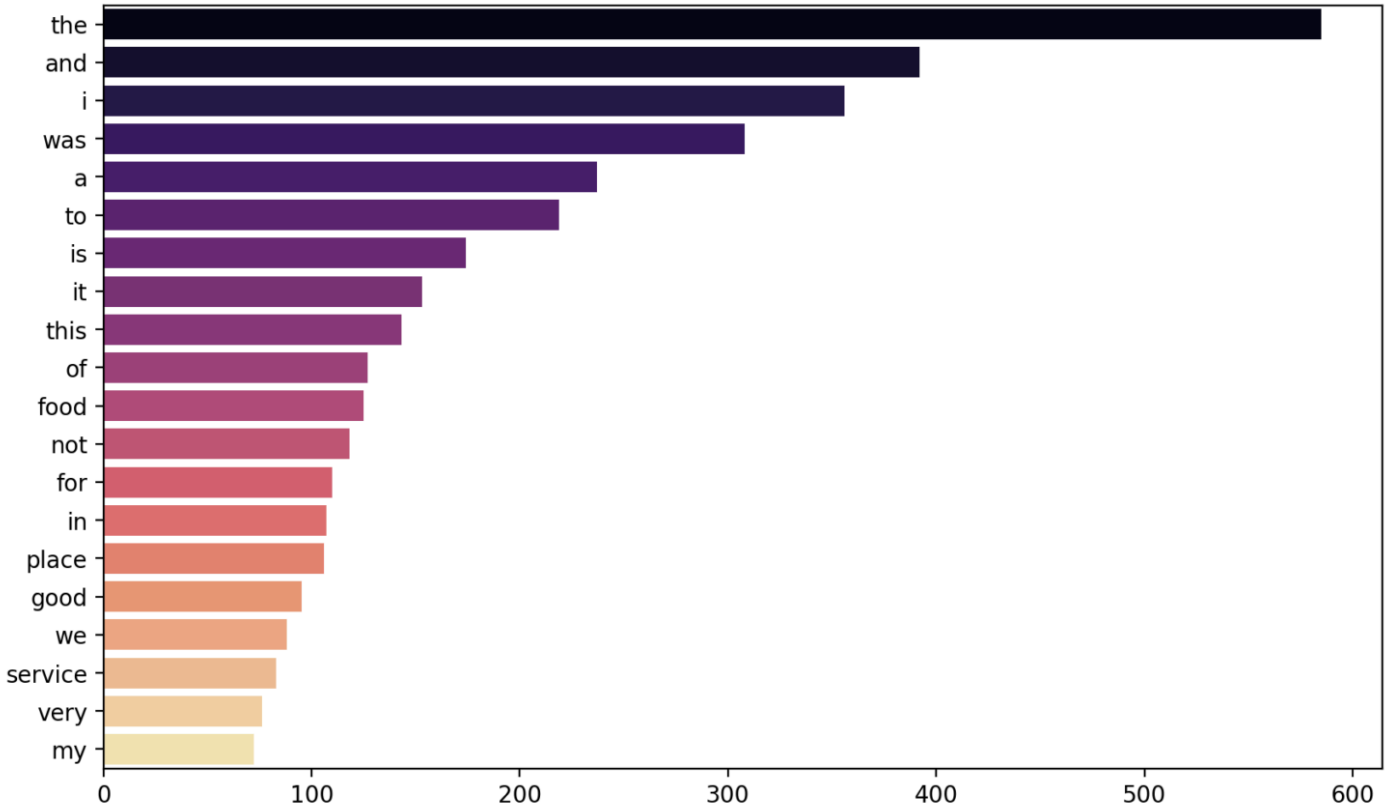
The sentiment of the review is: **Positive**

Class Distribution



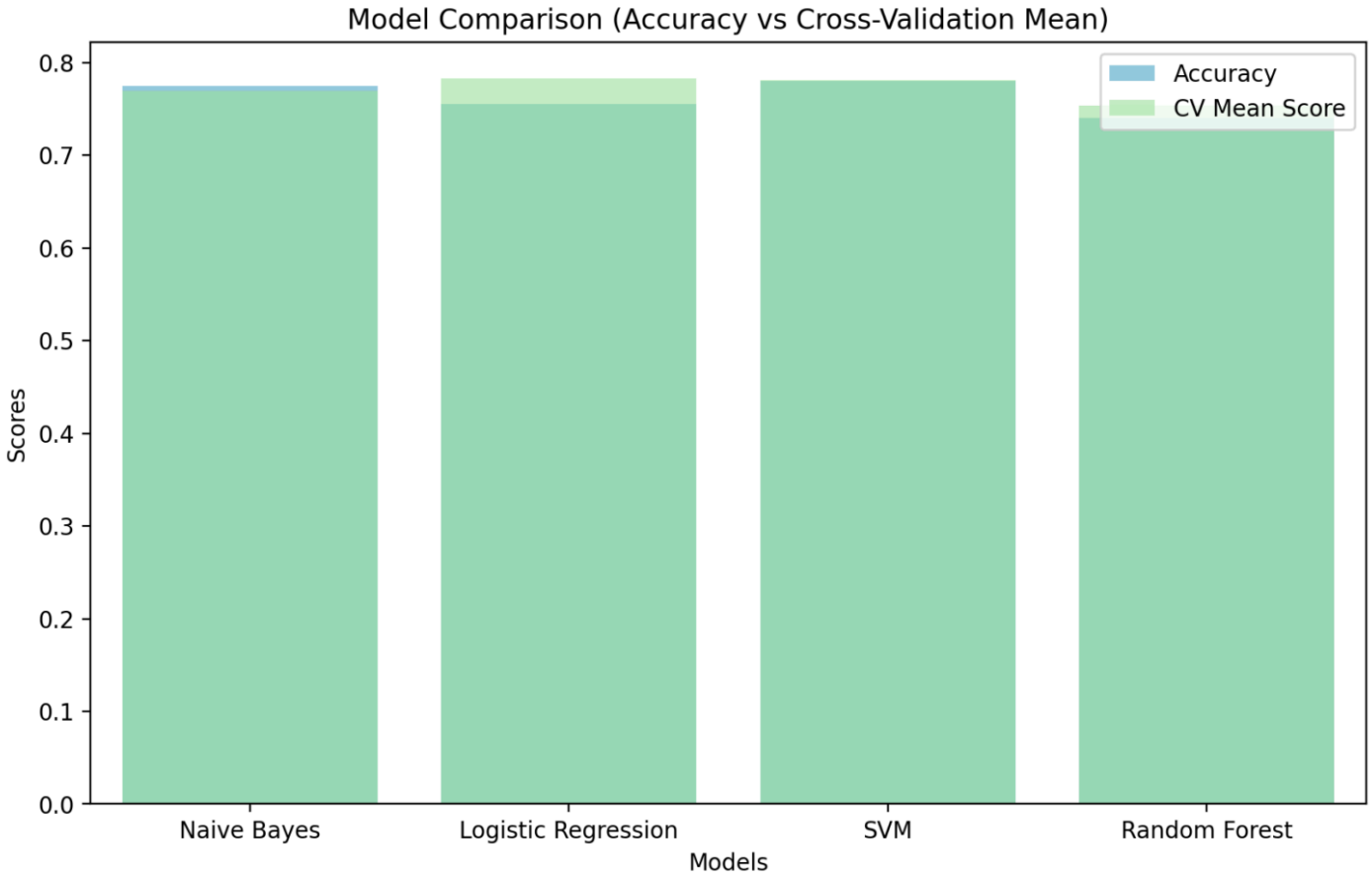
Word Cloud of Reviews

Top 20 Frequent Words

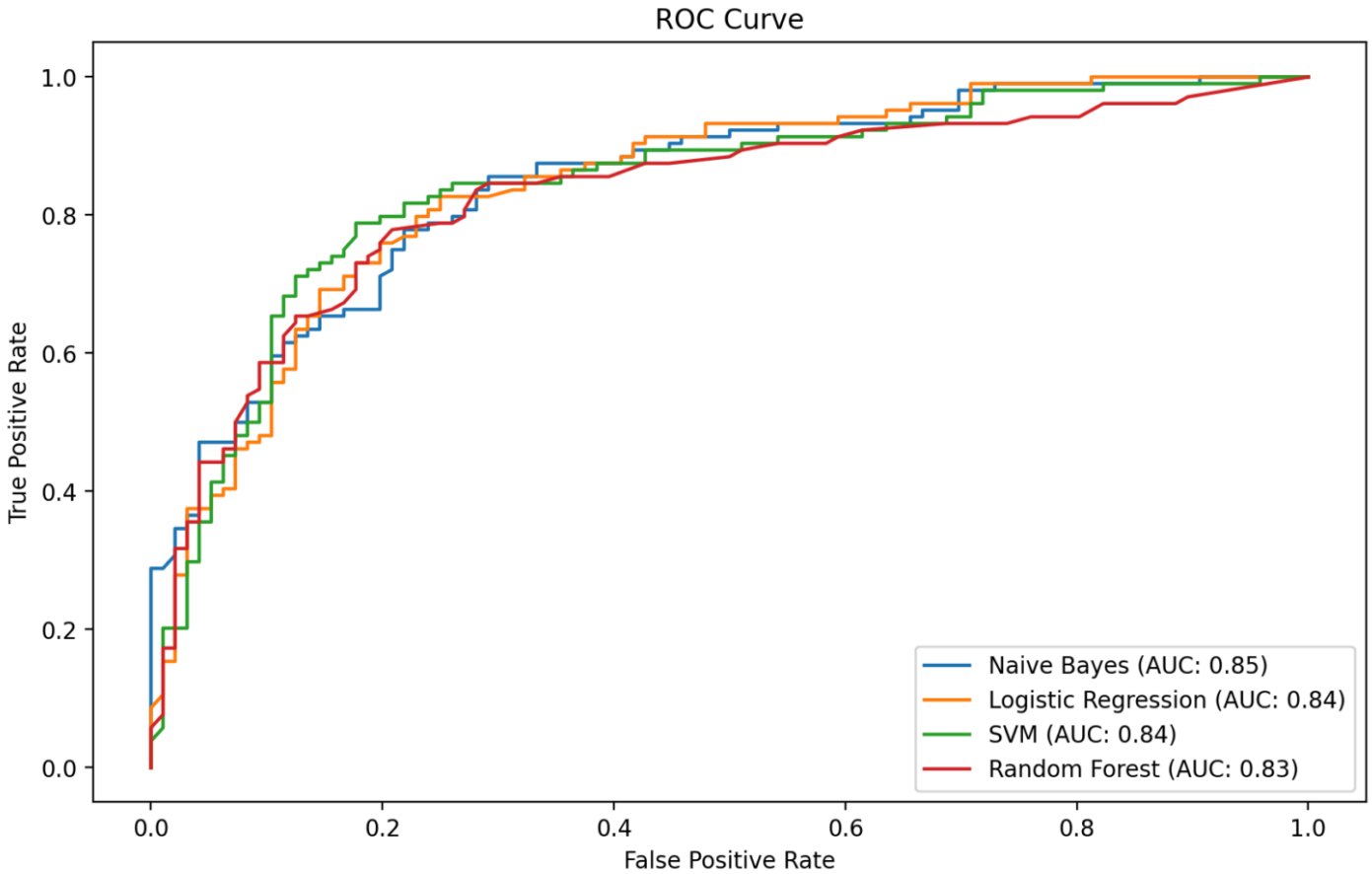


Model Comparison

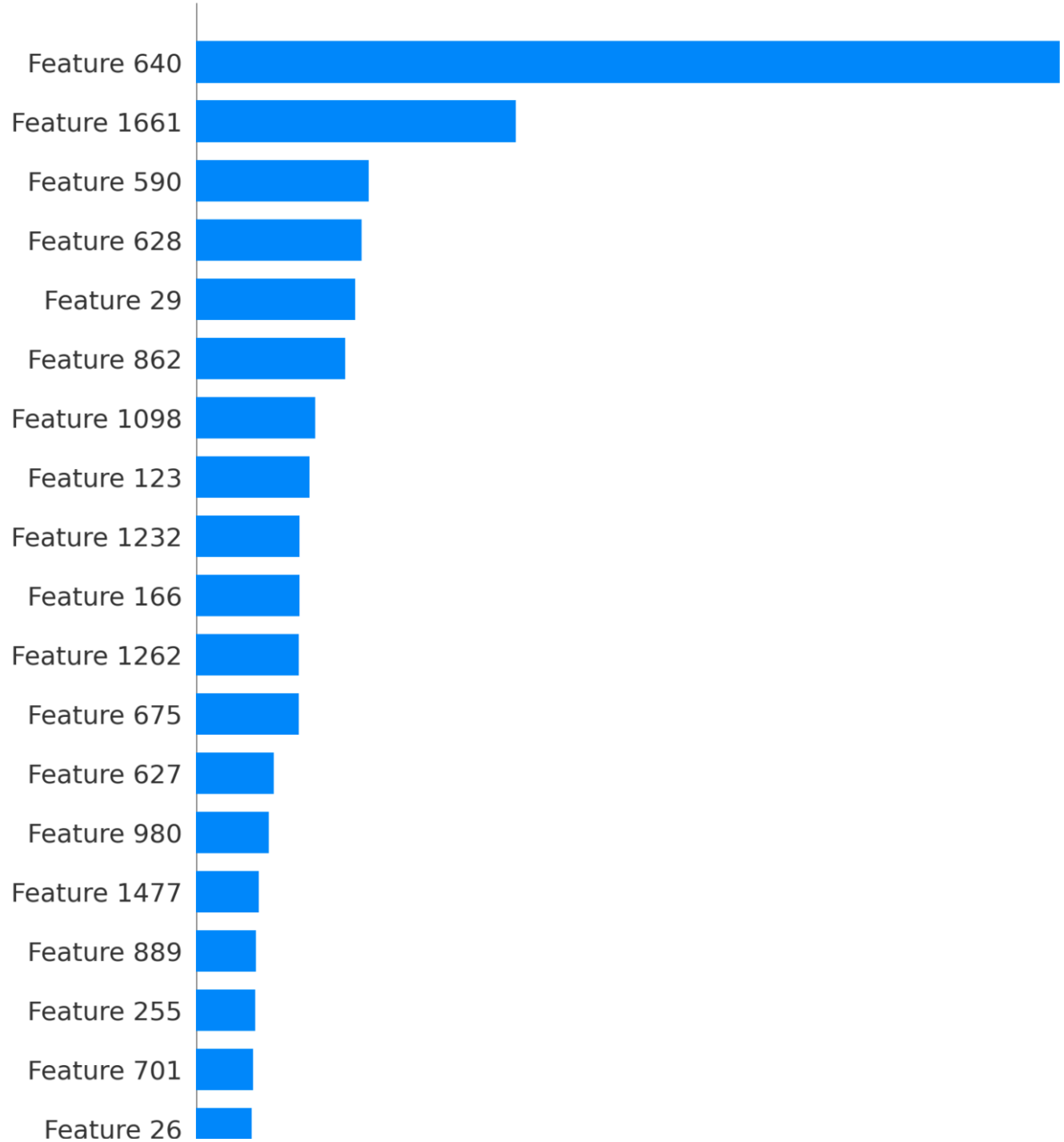
	Model	Accuracy	CV Mean	Training Time (s)
0	Naive Bayes	0.775	0.77	0.007
1	Logistic Regression	0.755	0.7825	0.024
2	SVM	0.78	0.7813	2.8024
3	Random Forest	0.74	0.7537	0.6076

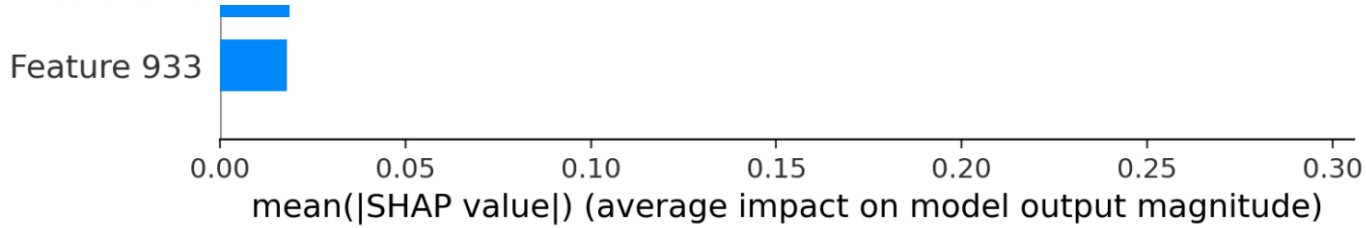


ROC Curve for Models



SHAP Summary Plot


Feature 640
Feature 1661
Feature 590
Feature 628
Feature 29
Feature 862
Feature 1098
Feature 123
Feature 1232
Feature 166
Feature 1262
Feature 675
Feature 627
Feature 980
Feature 1477
Feature 889
Feature 255
Feature 701
Feature 26


Feature 933
0.00
0.05
0.10
0.15
0.20
0.25
0.30
mean(|SHAP value|) (average impact on model output magnitude)