

Binary Classification Web App

Are your mushrooms edible or poisonous?

Choose Classifier

Classifier

Logistic Regression

☒ Show Classifier Documentation

Model Hyperparameters

C (Regularization parameter)

0.01

Maximum number of iterations

229

100500

What metrics to plot?

Confusion Matrix

ROC Curve

Precision-Recall ...

Classify

☒ Show raw data

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Are your mushrooms edible or poisonous?

Documentation for Logistic Regression

Logistic Regression:

- A statistical method for binary classification that predicts the probability of an outcome.
- It assumes a linear relationship between the input features and the log-odds of the outcome.
- Hyperparameters:
 - C: Regularization strength. Smaller values mean stronger regularization.
 - Max Iter: Maximum number of iterations for the solver.

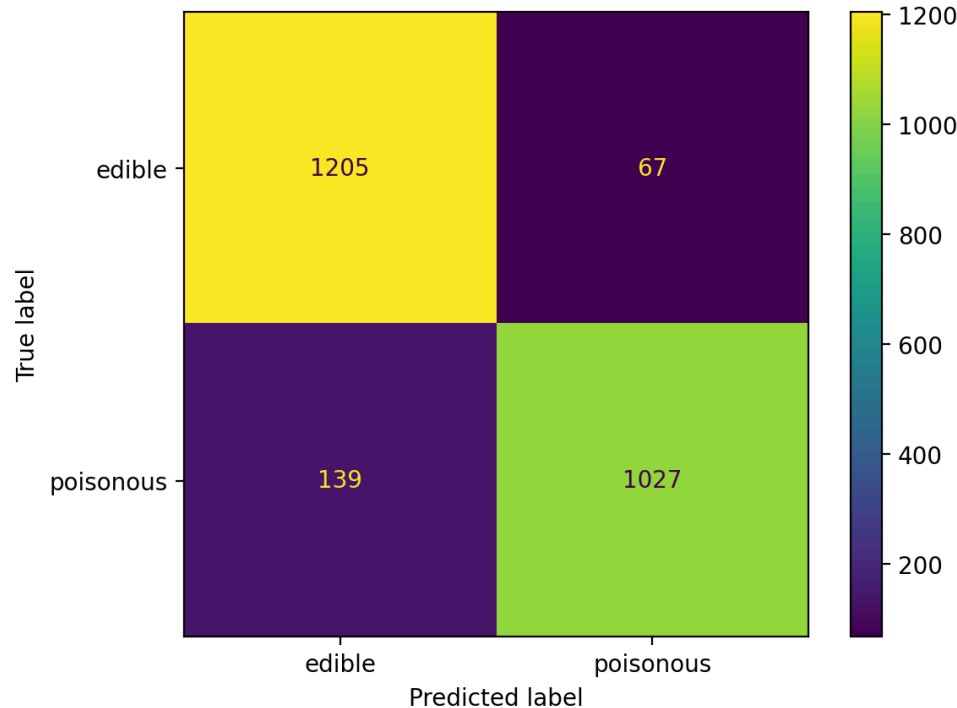
Logistic Regression Results

Accuracy: 0.92

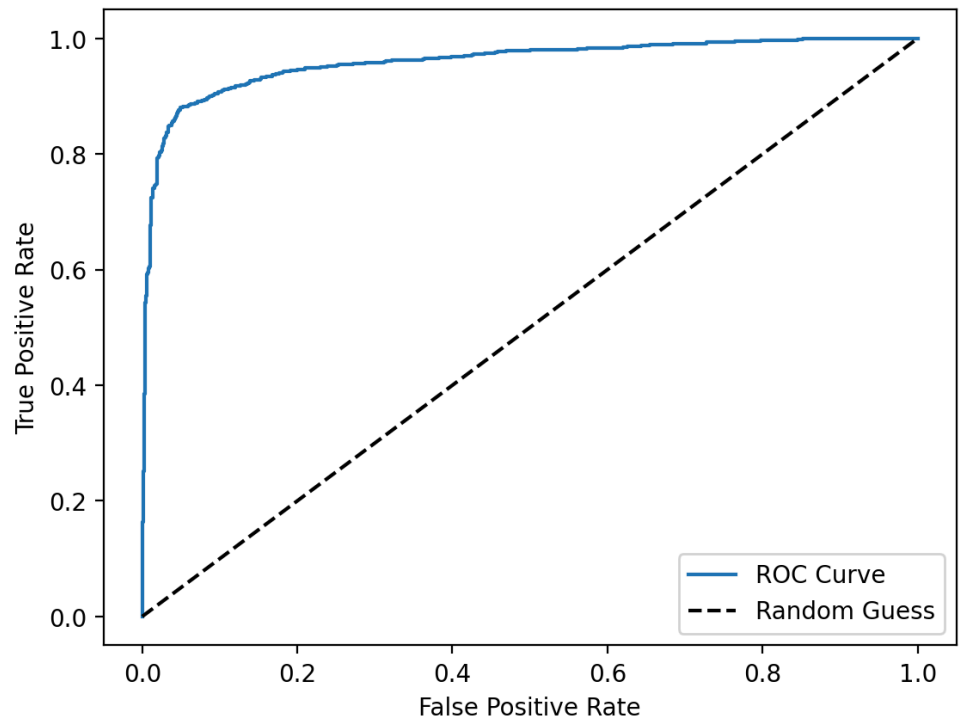
Precision: 0.94

Recall: 0.88

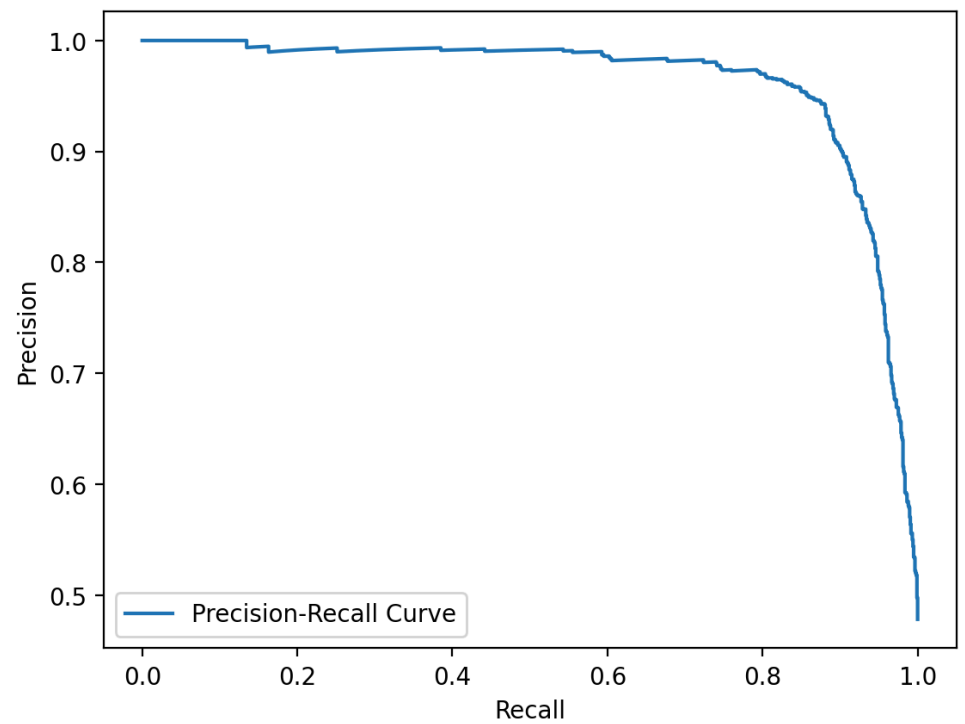
Confusion Matrix



ROC Curve



Precision-Recall Curve



Mushroom Data set (Classification)

| | type | cap_shape | cap_surface | cap_color | bruises | odor | gill_attachment | gill_spacing | gill_size |
|---|------|-----------|-------------|-----------|---------|------|-----------------|--------------|-----------|
| 0 | 1 | 5 | 2 | 4 | 1 | 6 | 1 | 0 | 1 |
| 1 | 0 | 5 | 2 | 9 | 1 | 0 | 1 | 0 | 0 |
| 2 | 0 | 0 | 2 | 8 | 1 | 3 | 1 | 0 | 0 |
| 3 | 1 | 5 | 3 | 8 | 1 | 6 | 1 | 0 | 1 |
| 4 | 0 | 5 | 2 | 3 | 0 | 5 | 1 | 1 | 0 |
| 5 | 0 | 5 | 3 | 9 | 1 | 0 | 1 | 0 | 0 |
| 6 | 0 | 0 | 2 | 8 | 1 | 0 | 1 | 0 | 0 |
| 7 | 0 | 0 | 3 | 8 | 1 | 3 | 1 | 0 | 0 |
| 8 | 1 | 5 | 3 | 8 | 1 | 6 | 1 | 0 | 1 |
| 9 | 0 | 0 | 2 | 9 | 1 | 0 | 1 | 0 | 0 |
| | | | | | | | | | |