Model Card for Breast Cancer Wisconsin (Diagnostic) Dataset

Model Details

Overview

This model predicts whether breast cancer is benign or malignant based on image measurements.

Version

name: 4cf89e7b-6049-42c6-a77c-30739f49698d
date: 2024-06-12

Owners

Model Cards Team, model-cards@google.com

References

- https://archive.ics.uci.edu/ml/datasets/Breast+Cancer+Wisconsin+(Diagnostic)
- https://minds.wisconsin.edu/bitstream/handle/1793/59692/TR1131.pdf

Considerations

Intended Users

- Medical professionals
- ML researchers

Use Cases

- Breast cancer diagnosis

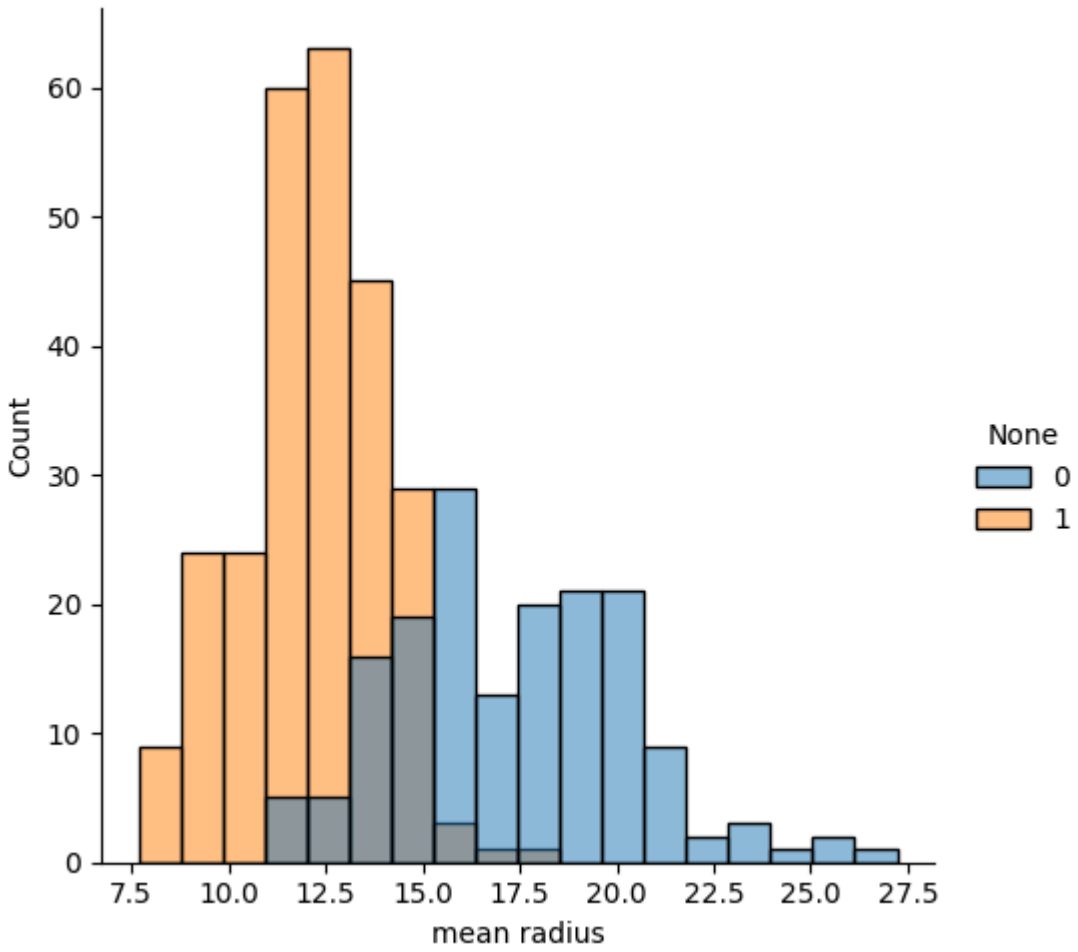
Limitations

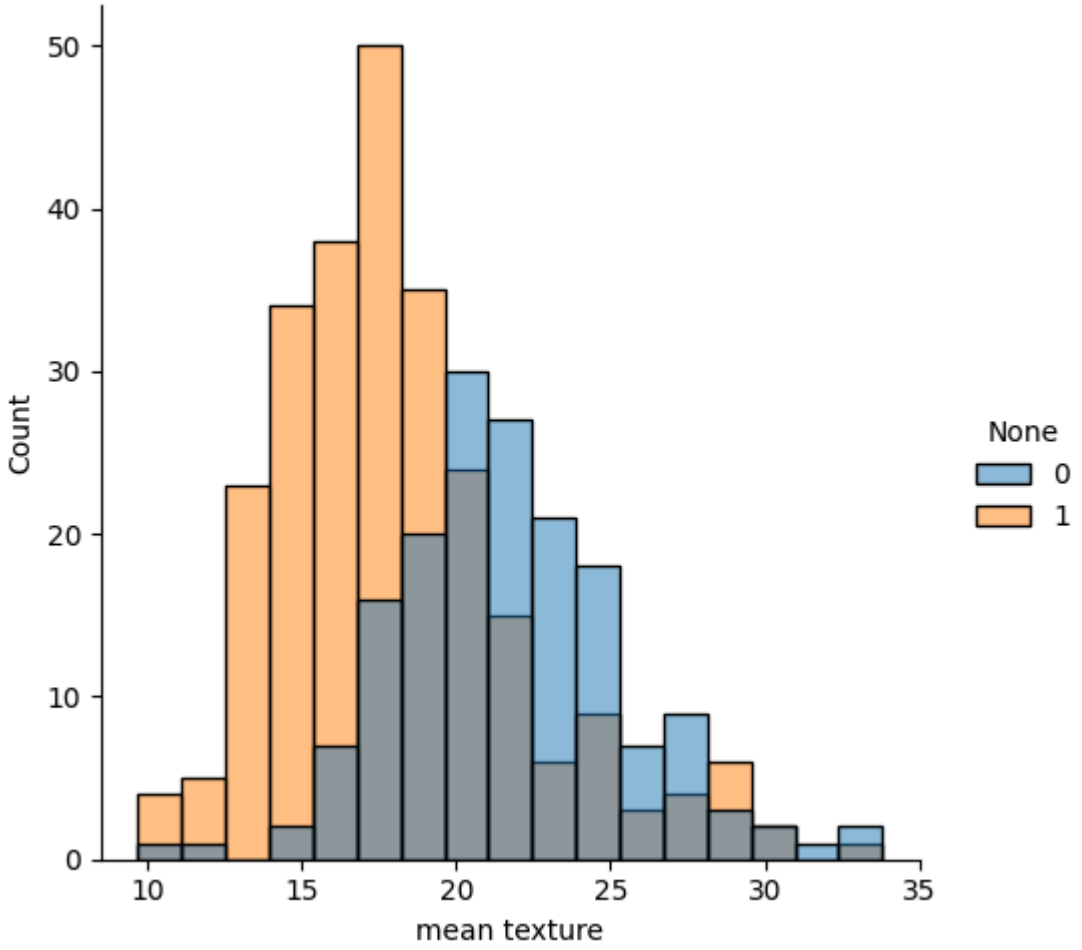
- Breast cancer diagnosis

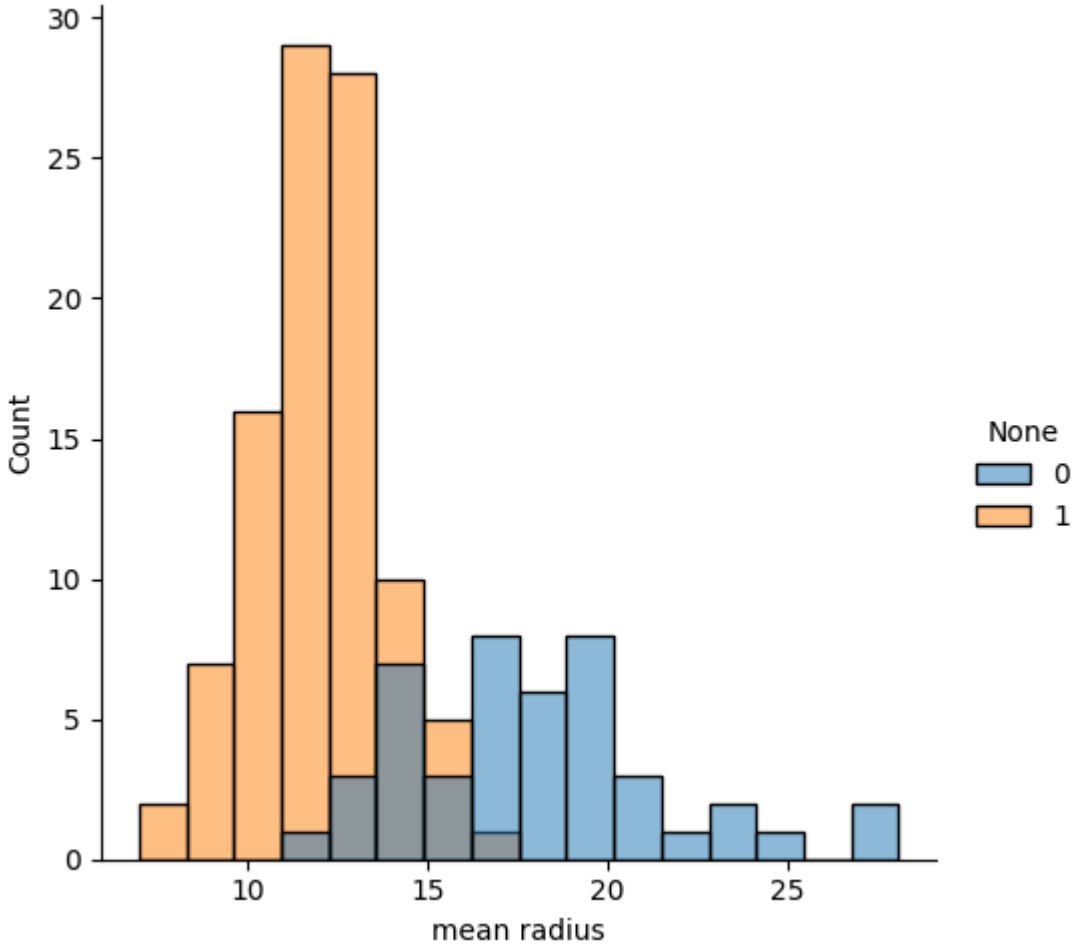
Ethical Considerations

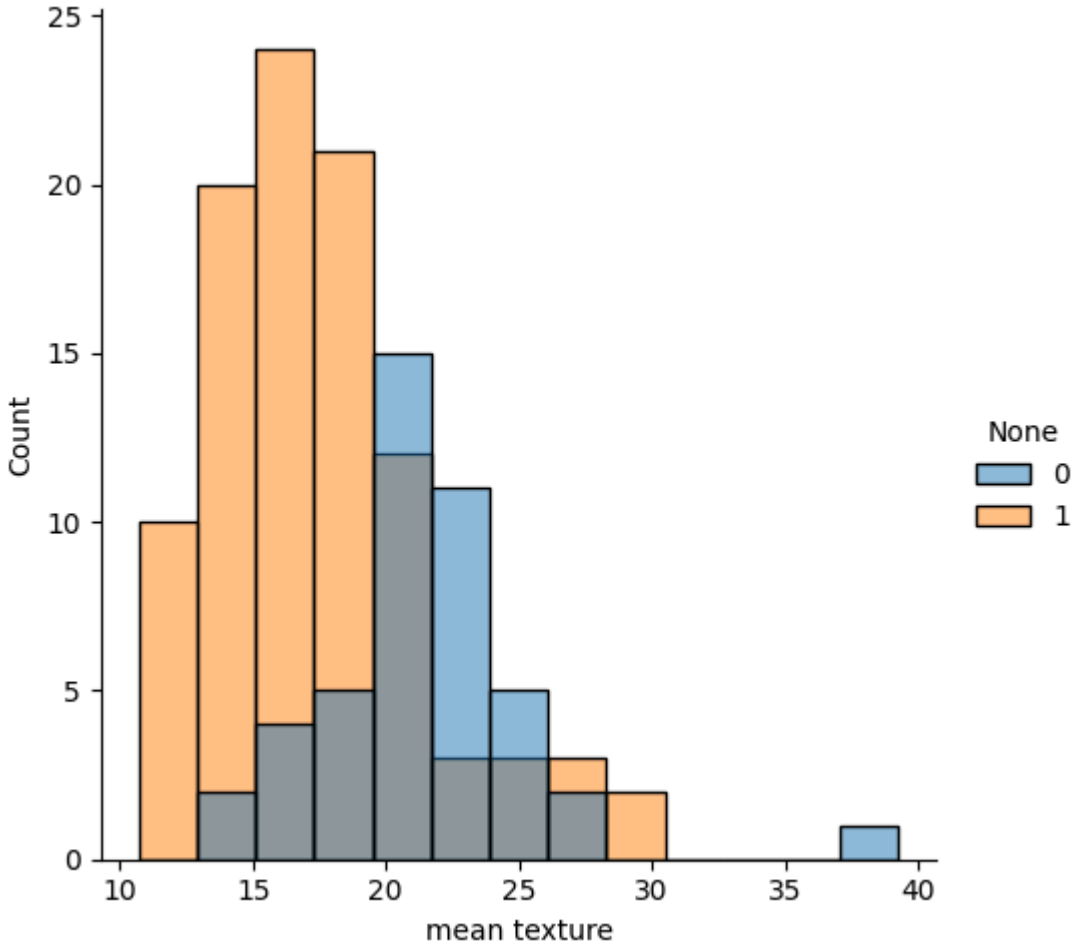
- Risk: Manual selection of image sections to digitize could create selection bias
  Mitigation Strategy: Automate the selection process

Datasets


60
50
40
30
20
10
0
Count
7.5
10.0
12.5
15.0
17.5
20.0
22.5
25.0
27.5
mean radius
None
0
1

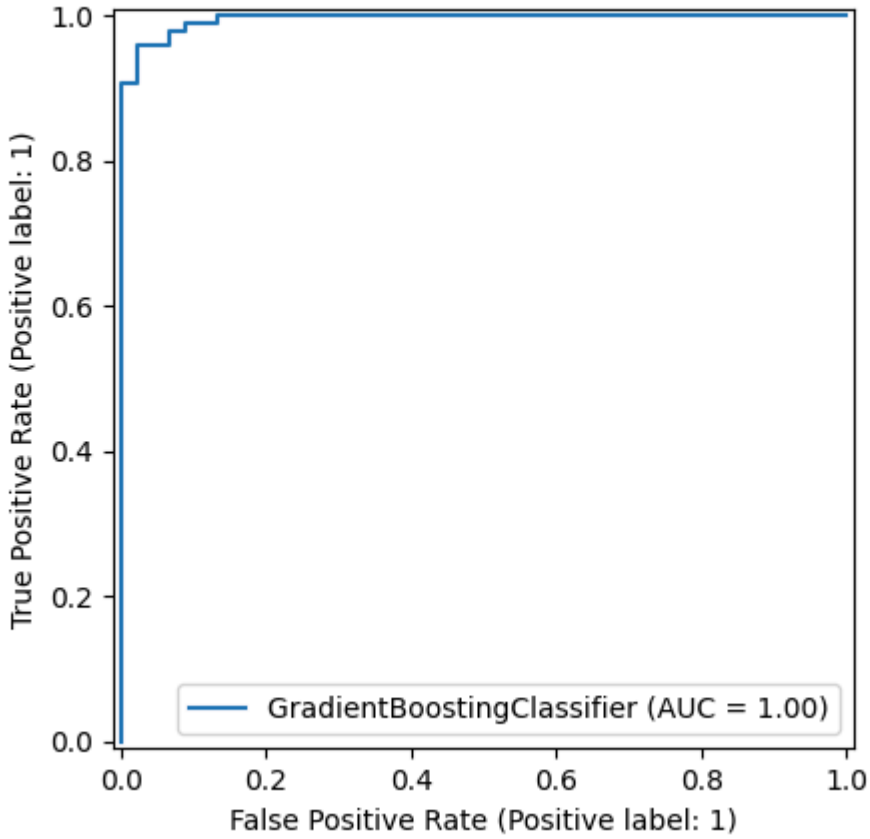

50
40
30
20
10
0
Count
10
15
20
25
30
35
mean texture
None
0
1

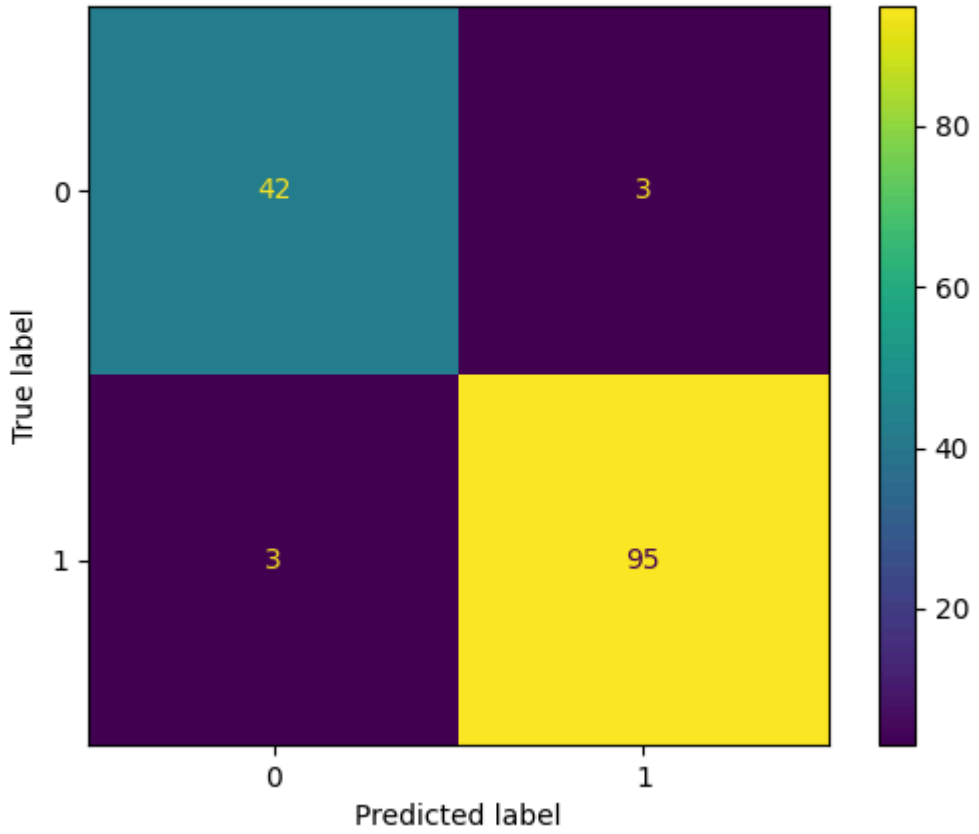

30
25
20
15
10
5
0
Count
10
15
20
25
mean radius
None
0
1



Quantitative Analysis

ROC curve and confusion matrix


1.0
0.8
0.6
0.4
0.2
0.0
True Positive Rate (Positive label: 1)
GradientBoostingClassifier (AUC = 1.00)
0.0
0.2
0.4
0.6
0.8
1.0
False Positive Rate (Positive label: 1)


42
3
3
95
0
1
True label
0
1
Predicted label
80
60
40
20