Plot results using different strategies

1. Youden's J Statistic
2. # Use Youden's J Statistic
3. def find\_optimal\_threshold(y\_true, y\_scores):
4. fpr, tpr, thresholds = roc\_curve(y\_true, y\_scores)
5. youdens\_j = tpr + (1 - fpr) - 1
6. optimal\_index = youdens\_j.argmax()
7. optimal\_threshold = thresholds[optimal\_index]
9. # Print all threshold values, fpr, and tpr
10. print('Thresholds:', thresholds)
11. print('False Positive Rate (FPR):', fpr)
12. print('True Positive Rate (TPR):', tpr)
14. print('Optimal threshold:', optimal\_threshold)
15. return optimal\_threshold

A graph of different colored bars

Description automatically generated with medium confidence

Ignore the heading, this is for grounding Dino

A graph of different colored bars

Description automatically generated

A graph of different colored bars

Description automatically generated

2. Highest specificity, it selects first value from the returned thresholds (which is highest maybe leading to low sensitivity results compared to above)

**A screen shot of a computer code

Description automatically generated**

A graph of a number of blue and green bars

Description automatically generated

A graph of a number of people

Description automatically generated with medium confidence

A graph of different colored bars

Description automatically generated with medium confidence

3. Selecting the threshold nearest to specificity of 0.9

A screen shot of a computer program

Description automatically generated

Specificity: 1.0 Threshold: inf in all cases, it always picks the first value from threshold which is inf

A graph of a number of different colored bars

Description automatically generated with medium confidence

A white screen with black text

Description automatically generated

A graph of different colored bars

Description automatically generated with medium confidence

Exclude inf values from threshold and result remains same except for sensitivity

A computer screen shot of text

Description automatically generated

A screenshot of a graph

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