

INFO251 – Applied Machine Learning

Lab 4
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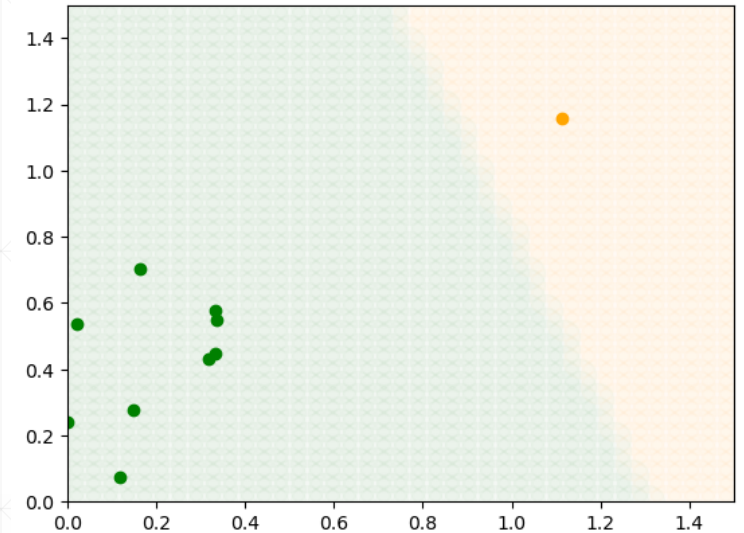
Announcements

- **Problem Set 3 Released!**



Performance / Evaluation Metrics

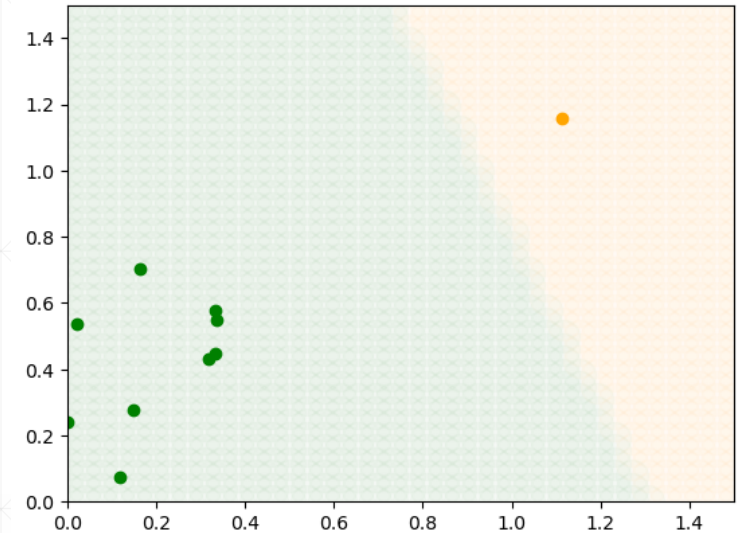
- Assume that green is the “positive” class here
- $\text{Accuracy} = \frac{TP + FN}{TP + FP + FN + TN}$
- $\text{TPR} = \frac{TP}{TP + FN}$
- $\text{FPR} = \frac{FP}{FP + TN}$
- $\text{Precision} = \frac{TP}{TP + FP}$



		Predicted	
		Green	Orange
Actual	Green	TP	FN
	Orange	FP	TN

Performance / Evaluation Metrics

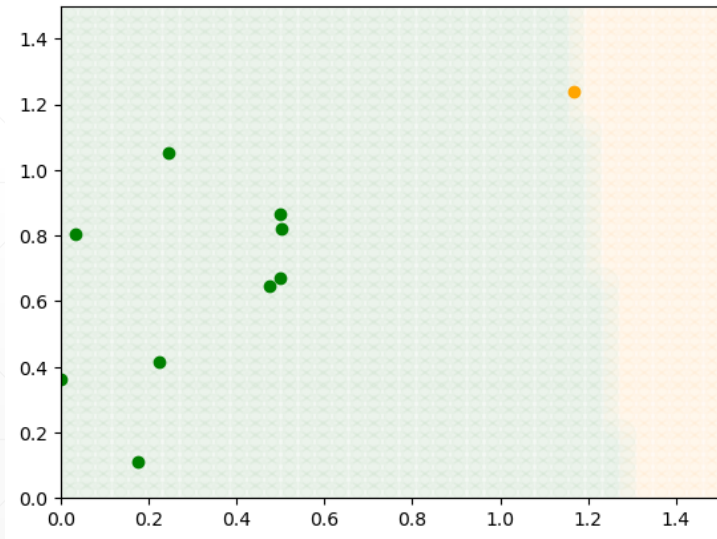
- $\text{TPR} = P[\hat{y}(x) = \text{Green} \mid y = \text{Green}]$
- $\text{FPR} = P[\hat{y}(x) = \text{Green} \mid y = \text{Orange}]$
- $\text{Precision} = P[y = \text{Green} \mid \hat{y}(x) = \text{Green}]$



		Predicted	
		Green	Orange
Actual	Green	TP	FN
	Orange	FP	TN

Example 1

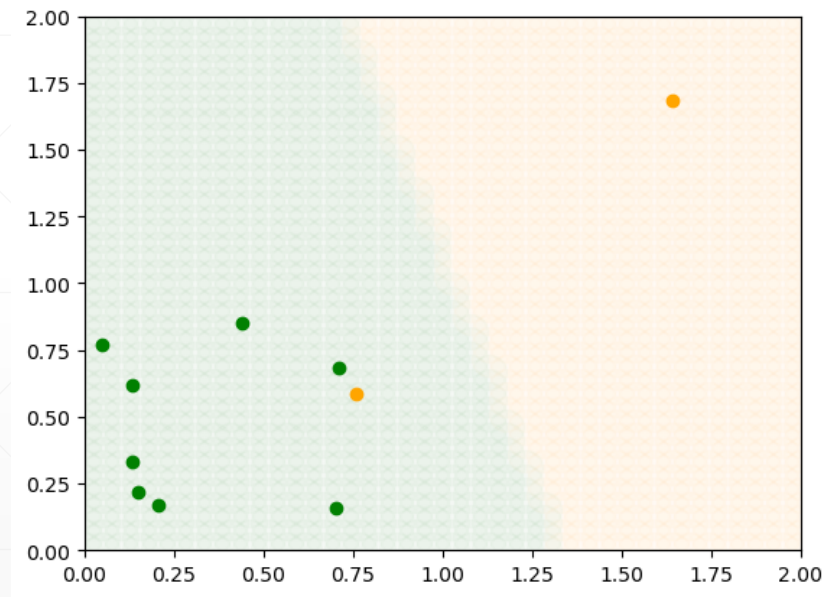
- Calculate accuracy, TPR, FPR and Precision



		Predicted	
		Green	Orange
Actual	Green	9	0
	Orange	0	1

Example 2

- Calculate accuracy, TPR, FPR, and Precision



		Predicted	
		Green	Orange
Actual	Green	8	0
	Orange	1	1