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Group Homework Credit

Fall 2023

Tasks E and F (both will present on Sept. 28, 2023)

Group E Task(s)

A confusion Matrix of a classification model for distinguishing classes A, B, C, D, E and F is depicted below:

What does the entry containing the number six mean? What is the accuracy of the classification model[[1]](#footnote-1). What is its precision for the classes B and C? What is its recall for the classes B and C? What is the F-measure score for the class C? What advantages/disadvantages do you see in computing F-measure scores instead of computing accuaracy?



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Group F Task

Non-parametric Density Estimation

Dataset O={x1,x2,x3,x4}

Data Points:

 x1=(1,1), x2=(4,4), x3=(6,4), x4=(4,6)

 Query Points:

 q1=(1,2) and q2=(4,5)

Assume Manhattan distance[[2]](#footnote-2) is used as the distance function.

a. Compute fGauss (q1) assuming bandwidth σ=1

b. Compute fGauss (q2) assuming bandwidth σ=1

c. Compute fGauss (q2) assuming bandwidth σ=3

d. Interpret the 3 results!

1. Give both the formulas and their actual value for all your answers! [↑](#footnote-ref-1)
2. d((x1,y1),(x2,y2))= |x1-x2| + |y1-y2| [↑](#footnote-ref-2)