??

SUN2012

??

CLASSNo. OF IMAGES
Total: 1921

?
$5\times$
5
$4=$
8
$9\times$
9
$17\times$
17
??
??
??
??
??
?.
3000
$_c rop.png$
$_c$rop.png
SUN2012
?
$\dot{C}$
γ
$C=$
1
$\gamma=$
$$\frac{1}{NumberOfFeatures}$$
C
C
C
γ

$$Precision = NumberOfTruePositivesNumberOfTruePositives + NumberOfFalsePositives$$

(1)

$$Recall = NumberOfTruePositivesNumberOfTruePositives + NumberOfFalseNegatives$$

(2)

$P(r)$

$$AveragePrecision = \sum_{k=1}^{n}(P(k)\times rel(k))NumberOfTruePositives + NumberOfFalseNegatives,$$

(3)

k
n
$P(k)$
k
$rel(k)$
k
N

$$MeanAveragePrecision = \sum_{n=1}^{N} AveragePrecision(n)N$$

(4)

C
γ
θ_1
θ_2
??
??
??
$C=$
$\gamma=$
$\frac{1}{1921}=$
0.000521
??
(C,γ)
??
$(C,\gamma), Folds=$
3
$\theta_1=$
$\theta_2=$
9
$(C,\gamma), Folds=$
3
$\theta_1=$
$\theta_2=$
9

lass$k=256$ $k=512$ $k=1024$ **Prior**
$(C,\gamma), Folds=$
10
$\theta_1=$
$\theta_2=$
9
(C,γ)
$Folds=$
$10, \theta_1=$

10

$(C, \gamma), Folds =$

10

$\theta_1 =$

$\theta_2 =$

10

Class $k = 256$ $k = 512$ $k = 1024$ **Prior**

$(C, \gamma), Folds =$

50

$\theta_1 =$

$\theta_2 =$

10

$(C, \gamma), Folds =$

50

$\theta_1 =$

$\theta_2 =$

10

Class $k = 256$ $k = 512$ $k = 1024$ **Prior**

θ_1, θ_2

$(C, \gamma), Folds =$

3

$\theta_1 =$

$\theta_2 =$

9

Class$k = 256$ $k = 512$ $k = 1024$**Prior**

$(C, \gamma), Folds =$

10

$\theta_1 =$

$\theta_2 =$

9

Class$k = 256$ $k = 512$ $k = 1024$**Prior**

$(C, \gamma), Folds =$

50

$\theta_1 =$

$\theta_2 =$

9

Class$k = 256$ $k = 512$ $k = 1024$**Prior**

$(C, \gamma), Folds =$

3

$\theta_1 =$

$\theta_2 =$

10

Class$k = 256$ $k = 512$ $k = 1024$**Prior**

$(C, \gamma), Folds =$

10

$\theta_1 =$

$\theta_2 =$

10

Class$k = 256$ $k = 512$ $k = 1024$**Prior**

$(C, \gamma), Folds =$

50

$\theta_1 =$

$\theta_2 =$

10

Class$k = 256$ $k = 512$ $k = 1024$**Prior**

$Foldsk\theta_1, \theta_2 \overset{(C,\gamma)}{\underset{(C,\gamma)}{MAP}} \overset{}{\underset{(C,\gamma)}{MAP}}$

$MAP =$
1
$MAP =$
0.65
$MAP =$
0.48
??
??
??
(C, γ)
??
(C, γ)
$Folds =$
3
Class $k = 256$ $k = 512$ $k = 1024$
(C, γ)
$Folds =$
10
Class $k = 256$ $k = 512$ $k = 1024$
(C, γ)
$Folds =$
50
Class $k = 256$ $k = 512$ $k = 1024$
(C, γ)
$Folds$ k MAP