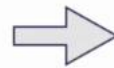
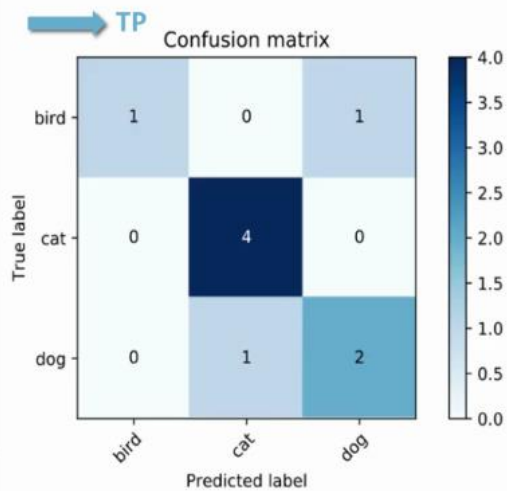
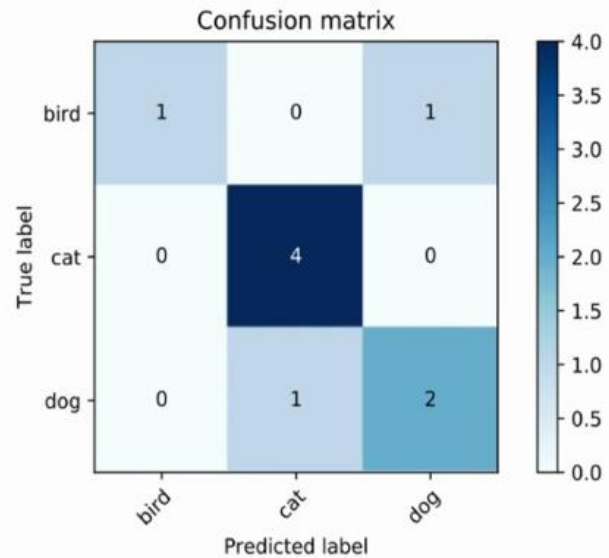
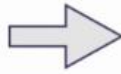


MICRO, MACRO AND WEIGHTED PRECISION

Label	Predicted
cat	cat
cat	cat
cat	cat
cat	cat
dog	dog
dog	dog
dog	cat
bird	dog
bird	bird



	TP	FP
bird	1	0
cat	4	1
dog	2	1
TOTAL	7	2



$$Precision = \frac{TP}{TP + FP}$$

	TP	FP	Pr.	N samples
bird	1	0	1	2
cat	4	1	0.8	4
dog	2	1	0.6666	3
TOTAL	7	2		

$$\text{micro pr} = \frac{7}{7+2} = 0.7777$$

$$\text{macro pr} = \frac{1}{3}(1 + 0.8 + 0.6666) = 0.8222$$

$$\text{weighted pr} = \frac{1 * 2 + 0.8 * 4 + 0.6666 * 3}{2 + 4 + 3} = 0.8$$