

CV HW-16

Criteria	Muti-class Classification	Muti-label Classification
Definition	An image/record will have exactly one label out of so many classes available. For example, An image has one cat and one dog so this classifier will give only one label to this image depending on the probability of these labels in this particular image: {Cat}/{Dog}.	An image/record can have more than one labels depending on the image. For example, An image has one cat and one dog so this classifier will give two labels to this image: {Cat, Dog}.
Loss function	Categorical Cross-entropy Loss is used.	Binary Cross-Entropy Loss is used.
Activation Function	Softmax is used in the final layer as an activation function that converts the score of any label into probability depending on scores of other labels and label with maximum probability is picked.	Sigmoid is used in the final layer as an activation function that converts the score of each final node into probability independent of other scores.
Target vector	One hot encoded target vector with exactly a single 1 at any position. Ex - [0, 0, 0, 0, 1]	One hot encoded target vector with multiple 1s anywhere in the vector. Ex - [1,0,0,1,1]