

กฎการเรียนรู้เพอร์เซปตรอน

$$w_i = 0.5; i = 0, 1, 2$$

$$x = \text{net sum}$$

$$f(x) = \begin{cases} 1; & x \geq 0 \\ 0; & x < 0 \end{cases}$$

Perceptron Learning Example - Function AND

$$w_{i, \text{new}} = w_{i, \text{old}} + \delta(t - o)x_i$$

Bias Input X0 = +1						Alpha = 0.5						
Input			Weight			Net Sum	Tarket	Actual	Alpha*	Weight Values		
x0	x1	x2	x0*w0	x1*w1	x2*w2	Input	Output	Output	Error	w0	w1	w2
							t	o	$\alpha(t-o)$	0.5	0.5	0.5
1	0	0	0.5	0	0	0.5	0	1	-0.5	0	0.5	0.5
1	0	1	0	0	0.5	0.5	0	1	-0.5	-0.5	0.5	0
1	1	0	-0.5	0.5	0	0	0	1	-0.5	-1	0	0
1	1	1	-1	0	0	-1	1	0	0.5	-0.5	0.5	0.5
1	0	0	-0.5	0	0	-0.5	0	0	0	-0.5	0.5	0.5
1	0	1	-0.5	0	0.5	0	0	1	-0.5	-1	0.5	0
1	1	0	-1	0.5	0	-0.5	0	0	0	-1	0.5	0
1	1	1	-1	0.5	0	-0.5	1	0	0.5	-0.5	1	0.5
1	0	0	-0.5	0	0	-0.5	0	0	0	-0.5	1	0.5
1	0	1	-0.5	0	0.5	0	0	1	-0.5	-1	1	0
1	1	0	-1	1	0	0	0	1	-0.5	-1.5	0.5	0
1	1	1	-1.5	0.5	0	-1	1	0	0.5	-1	1	0.5
1	0	0	-1	0	0	-1	0	0	0	-1	1	0.5
1	0	1	-1	0	0.5	-0.5	0	0	0	-1	1	0.5
1	1	0	-1	1	0	0	0	1	-0.5	-1.5	0.5	0.5
1	1	1	-1.5	0.5	0.5	-0.5	1	0	0.5	-1	1	1
1	0	0	-1	0	0	-1	0	0	0	-1	1	1
1	0	1	-1	0	1	0	0	1	-0.5	-1.5	1	0.5
1	1	0	-1.5	1	0	-0.5	0	0	0	-1.5	1	0.5
1	1	1	-1.5	1	0.5	0	1	1	0	-1.5	1	0.5
1	0	0	-1.5	0	0	-1.5	0	0	0	-1.5	1	0.5
1	0	1	-1.5	0	0.5	-1	0	0	0	-1.5	1	0.5
1	1	0	-1.5	1	0	-0.5	0	0	0	-1.5	1	0.5
1	1	1	-1.5	1	0.5	0	1	1	0	-1.5	1	0.5

	Actual Positive	Actual Negative	total
Target Positive	1	0	1
Target Negative	0	3	3
total	1	3	4

$$\text{Accuracy} = (TP + TN) / All$$

$$= 4 / 4$$

$$= 1$$

$$\text{Recall} = TP / (TP + FN)$$

$$= 1 / 1$$

$$= 1$$