กฎการเรียนรู้เพอร์เซปตรอน

$start\ at\ \ w_i = 0.5;\ i = 0,1,2$

$x = net\ sum$

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

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

Perceptron Learning Example - Function AND

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	α(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
Tarket Positive	TP	FP
Tarket Negative	FN	TN

	Actual Positive	Actual Negative	
Tarket Positive	1	0	1
Tarket Negative	0	3	3
	1	3	4

Accuracy (TP + TN) / All

Accuracy = 1

100%

Recall TP / (TP + FN)

Recall = 1

100%

Precision TP / (TP + FP)

Precision = 1

100%

F Score F1 = 2PR / P + R

F1 = 1

100%