

Perceptron HW

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CS 478
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$$\Delta w_i = c(t - z)X_i$$

target t output z

$$101 \rightarrow 0$$

$$110 \rightarrow 0$$

$$101 \rightarrow 1$$

$$011 \rightarrow 1$$

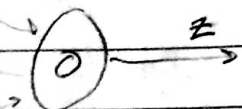
$$x_1 \rightarrow w_1$$

$$x_2 \rightarrow w_2$$

$$x_3 \rightarrow w_3$$

$$1 \rightarrow w_4$$

$$net > 0$$



Pattern	Target	Weights	Net	Output	ΔW
1011	0	1111	3	1	-1 0 -1 -1
1101	0	0100	1	1	-1 -1 0 -1
1011	1	-100-1	-2	0	1 0 1 1
0111	1	0010	1	1	0 0 0 0
		0010			

$$1(0-1)(1011) \rightarrow -1(1011) \rightarrow -10-1-1$$

$$1(0-1)(1101) \rightarrow -1(1101) \rightarrow -1-10-1$$

$$1(1-0)(1011) \rightarrow 1(1011) \rightarrow 1011$$

$$1(1$$