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1 import numpy as np
2 delta = 0.4
3 w0 = -15
4 x0 = 1
5 yobt = 0
6 it = 0
7 w = np.array([0,1])
8 epocas = 70
9 X = np.array([[0,0],
10              [0,1],
11              [1,0],
12              [1,1]])
13 [fil, col] = np.shape(X)
14 yd = np.array([0,1,1,1])
15 for i in range(0, epocas):
16     for j in range(0,fil):
17         while (yd[j] != yobt ):
18             z = np.dot(w, X[j,:]) + w0 * x0
19             #funcion de activacion
20             if z >= 0:
21                 yobt = 1
22             else:
23                 yobt = 0
24             if yobt == yd[j]:
25                 w = w
26             else:
27                 w = w + delta
28                 w0 = w0 + delta
29             it+=1
30
31
32 ##Fase de operacion
33 z = np.dot(w, X[3,:]) + w0 * x0
34     #funcion de activacion
35 if z >= 0:
36     yobt = 1
37 else:
38     yobt = 0
39
40 print(yobt)
```

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