

Awww?!

In python,
“readable **numpy** code”

YOON SO YOUNG
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before

Awww?!

```
import numpy as np
def Perceptron_AND_Before(x):
    x = np.array(x)
    w = np.array([0.5, 0.5])
    bias = -0.7
    mul_sum = np.matmul(x, np.transpose(w)) + bias
    mul_sum = [1 if x >= 0 else 0 for x in mul_sum]
    return mul_sum

print(Perceptron_AND_Before([[0,0],[0,1],[1,0],[1,1]]))
```

np.transpose(w)

w.T

np.matmul(x, w.T)

x @ w.T

[1 if x >= 0 else 1 for x in mul_sum]

np.where((x @ w.T + bias) >= 0, 1, 0)

after

Awww?!

```
def Perceptron_AND(x):  
    x = np.array(x)  
    w = np.array([0.5, 0.5])  
    bias = -0.7  
    return np.where((x @ w.T + bias)>=0, 1, 0)  
  
print(Perceptron_AND([[0,0],[0,1],[1,0],[1,1]]))
```

```
mul_sum = np.matmul(x,np.transpose(w)) + bias  
mul_sum = [1 if x>=0 else 0 for x in mul_sum]  
return mul_sum
```

<https://docs.scipy.org/doc/numpy/reference/generated/numpy.ndarray.T.html>

<https://docs.python.org/3/library/operator.html#operator.matmul>

<https://docs.scipy.org/doc/numpy/genindex.html>

more

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```
def Perceptron_AND(x):  
    x = np.array(x)  
    w = np.array([0.5, 0.5])  
    bias = -0.7  
    return np.where((x @ w.T + bias) >= 0, 1, 0)  
  
print(Perceptron_AND([[0,0],[0,1],[1,0],[1,1]]))
```

numpy.ndarray.T

attribute

Same as self.transpose(), except that self is returned if self.ndim < 2

ndarray.T

Same as self.transpose(), except that self is returned if self.ndim < 2.