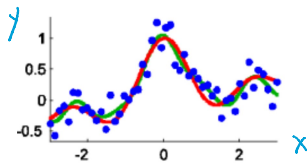


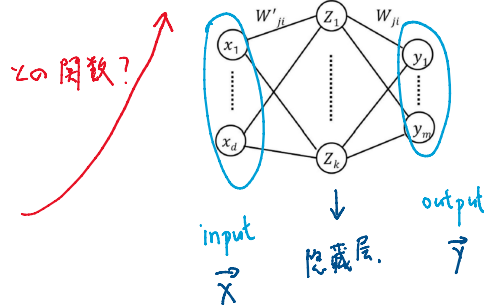
# 1.神经网络

Sunday, April 25, 2021 5:00 PM

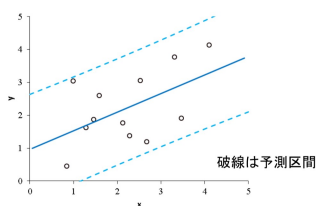


$y = f(x)$   
 $\downarrow$   
 $\sin?$   
 $\log?$   
 $w^T x = w_1 x_1 + w_2 x_2 + \dots?$   
 基底関数

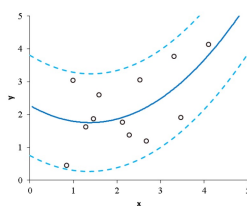
「万能」な表現力 + SGD  
 勾配降下



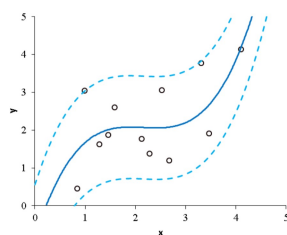
一次式



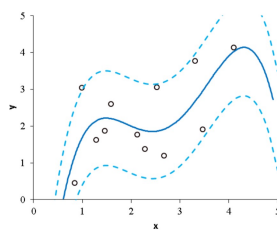
2次式で推定



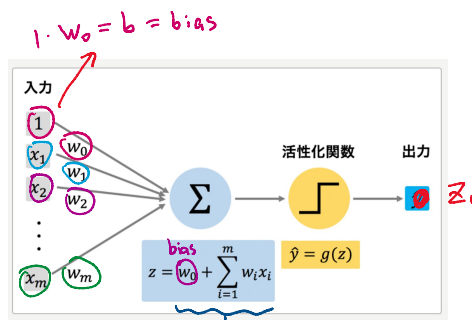
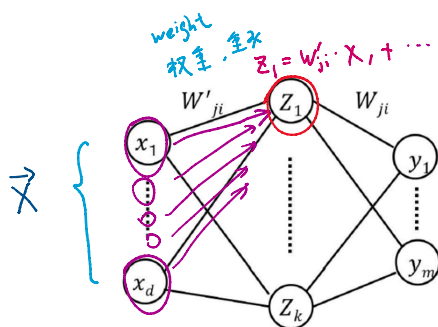
3次式



4次式



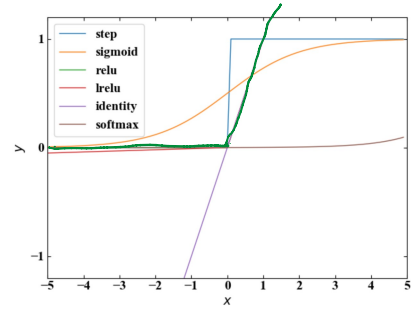
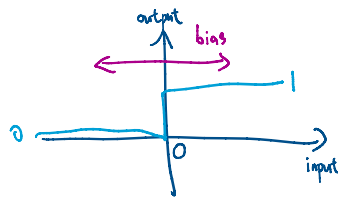
§ 感知器, パーセプトロン (全連層)



$$w_0 \cdot 1 + w_1 \cdot x_1 + w_2 \cdot x_2 + w_3 \cdot x_3 + \dots$$

$$\vec{w} \cdot \vec{x} = w^T x$$

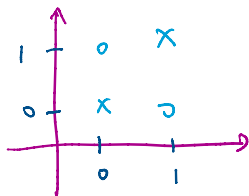
② 活性化関数 → filter



输入  $z_1$  值, 超过一定值,  $z_1$  才会激活.

§ 最初の 3 層 パーセプトロンの表現能力.

XOR 関数 无法表达.

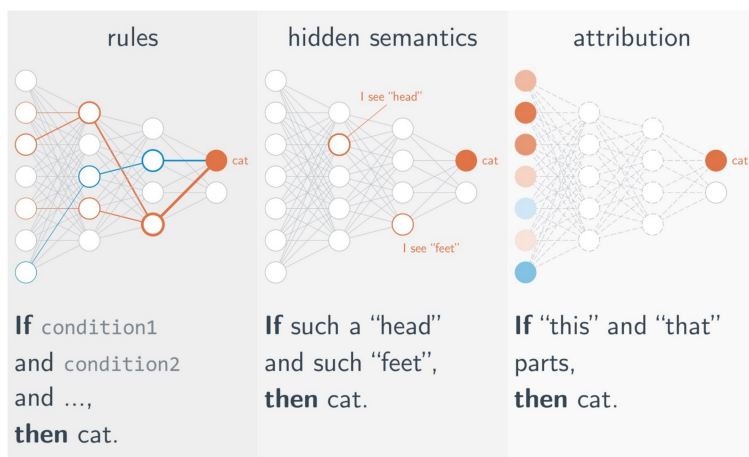


## Types of Explanations

### Dimension 1

**Question:** Why do you think it is a cat?

**Answer:**



by examples

Well, I can only say,  
If all the same as  
"this example",  
then cat (or not).

Explicit

Implicit