

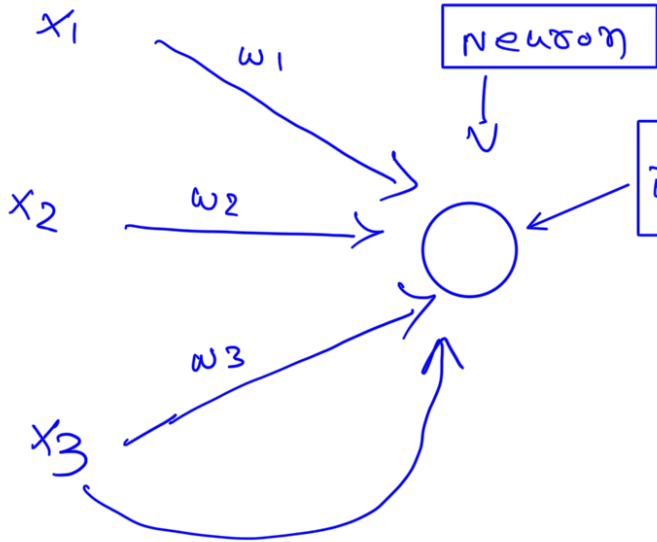
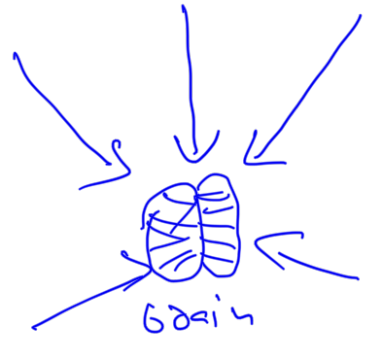
Neural network

\Rightarrow

1957

Perceptron :

$y \rightarrow 1$
 $y \rightarrow 0$

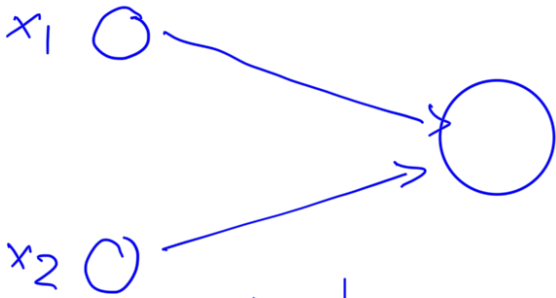


$$w_1x_1 + w_2x_2 + w_3x_3 + b$$

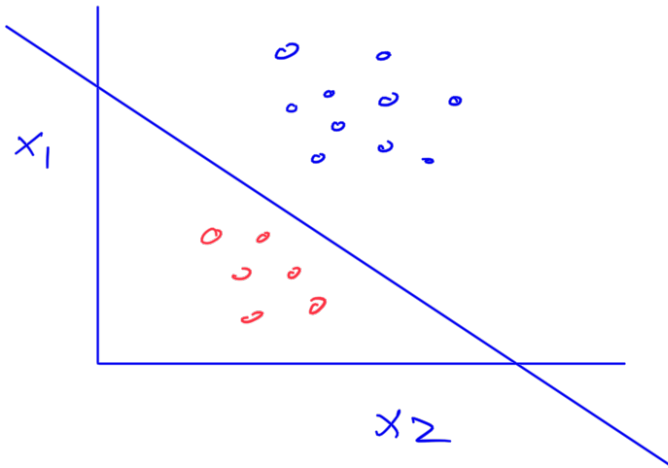
$$\begin{aligned} \text{Inf} &\geq 0 & \hat{y} &= 1 \\ \text{Inf} &< 0 & \hat{y} &= 0 \end{aligned}$$

$$\begin{aligned} w_1x_1 + w_2x_2 + b &\geq 0 & \hat{y} &= 1 \\ &< 0 & \hat{y} &= 0 \end{aligned}$$

272
1999



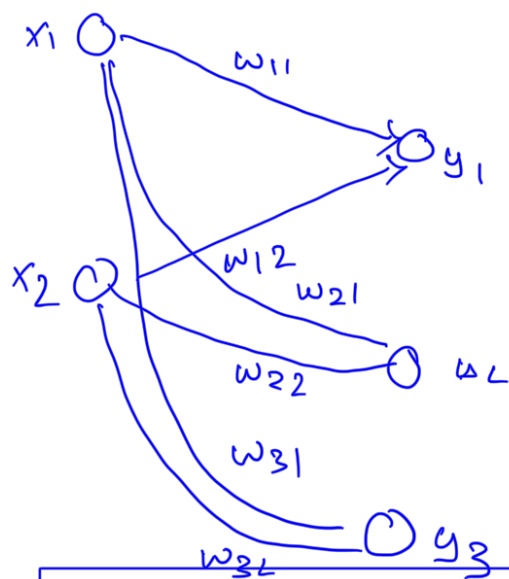
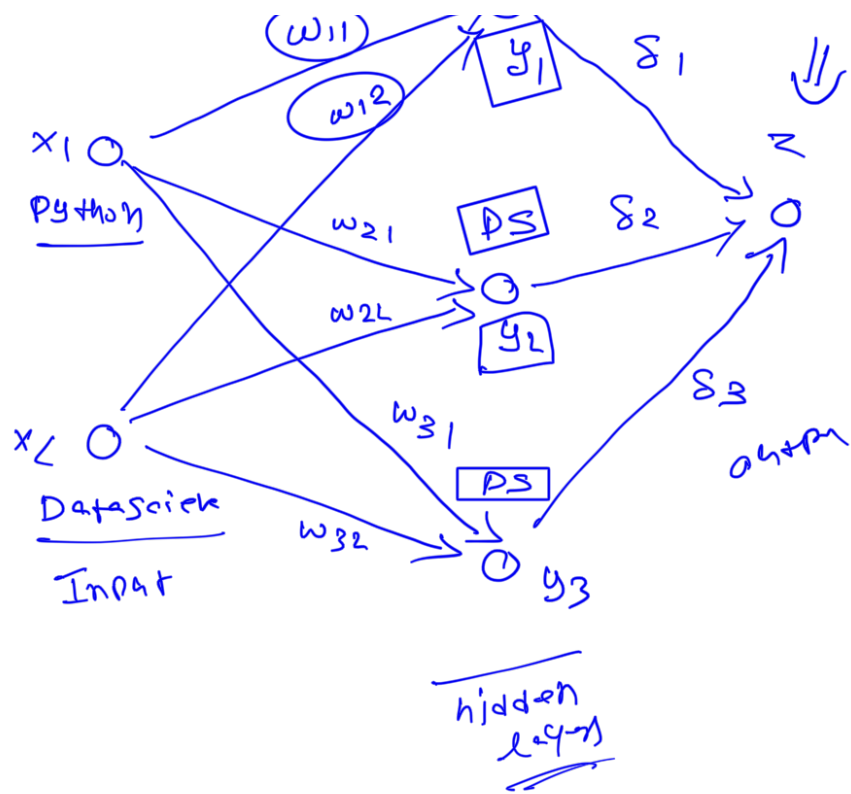
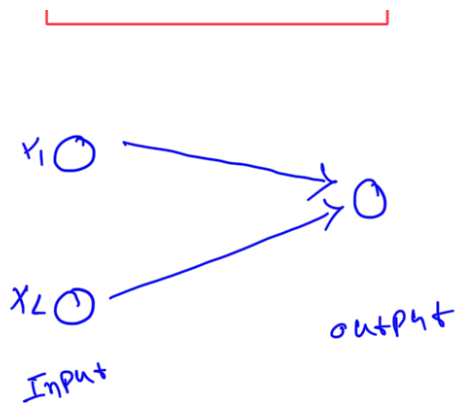
$$w_1x_1 + w_2x_2 + b = 0$$



Perceptron

MLP

SDF



$$w_{11}x_1 + w_{12}x_2 + b_1$$

$$w_{21}x_1 + w_{22}x_2 + b_2$$

$$w_{31}x_1 + w_{32}x_2 + b_3$$

Input

$$\delta_1(w_{11}x_1 + w_{12}x_2 + b_1) + \delta_2(w_{21}x_1 + w_{22}x_2 + b_2) + \delta_3(w_{31}x_1 + w_{32}x_2 + b_3) + b_4$$

120

$$\begin{aligned} \text{Info} > 0 & \quad \hat{y} = 1 \\ \text{Info} < 0 & \quad \hat{y} = 0 \end{aligned}$$

