2023_01_30

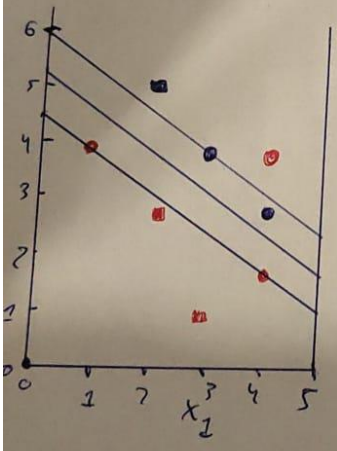
1) $\theta_1^* = (+1)\cdot(1)\cdot(3,38) + (1)\cdot(4)\cdot(5,75) + (-1)\cdot 3\cdot 9,13$
$+ (1)\cdot(4)\cdot(10) + (-1)\cdot 4\cdot 10 = \boxed{-1,0}$

$\theta_2^* = (+1)\cdot 4\cdot 3,38 + (+1)\cdot 2\cdot 5,75 + (-1)\cdot 4\cdot 9,13$
$+ (1)\cdot 4\cdot 10 + (-1)\cdot 3\cdot 10 = \boxed{-1,5}$

$\theta_0^* = 1 - ((-1,0)(4) + (-1,5)\cdot 2) = \boxed{8,0}$

) Frontera lineal $\rightarrow$ $\boxed{x_2 = -0,67 x_1 + 5,3}$

Vectores soporte $\rightarrow$ $(1,4)^t, (4,2)^t, (3,4)^t, (4,4)^t, (4,3)^t$



3) Tolerancias:

Muestras $1, 2, 3, 4, 5, 6 \Rightarrow 0$

" $7 = 1 - c_7(\theta^{*t} x_7 + \theta_0) = 3,0$

" $8 = 1 - c_8(\theta^{*t} x_8 + \theta_0) = 0,5$

4) Clasificar muestra $(5,5)^t$:

$\theta_0^* + \theta_1^* 1 + \theta_2^* 1 = -4,5 < 0$

$\Downarrow$

$\boxed{\text{clase } -1}$

2023-01-16

1) $\theta_1^* = 1 \cdot 1 \cdot 7{,}11 + (-1) \cdot 2 \cdot 10 + 1 \cdot 4 \cdot 9{,}11 + (-1) \cdot 4 \cdot 6{,}22 = \boxed{-1{,}33}$

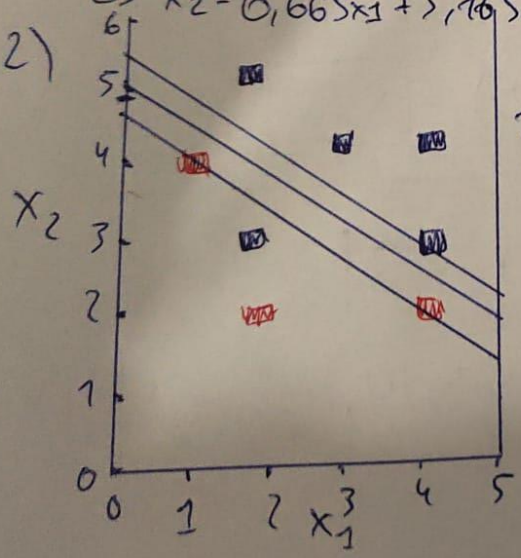
$\theta_2^* = 1 \cdot 4 \cdot 7{,}11 + (-1) \cdot 3 \cdot 10 + (1) \cdot 2 \cdot 9{,}11 + (-1) \cdot 3 \cdot 6{,}22 = \boxed{-2{,}00}$

$\theta_0^* = ((-1{,}33) \cdot 1 - 2{,}4) = \boxed{10{,}33}$

Frontera de decisión → vectores $(1,4)^t, (2,3)^t, (4,2)^t, (4,3)^t$

$\Rightarrow x_2 = 0{,}665 x_1 + 5{,}165$

2)



3) Clasificar $(5,5)^t$:

$\theta_0^* + \theta_1^* 5 + \theta_2^* 5 = -6{,}32 < 0$

$\Downarrow$

Clase -1