

6/8 Mon

Recap Logistic Regression

Regularization

Integration

ML key \Rightarrow overfitting



LR

GNB Gaussian Naive Bayes

(X_1, X_2, \dots, X_d)

$$P(X_i) = \prod_{i=1}^d P(X_i)$$

$x_1 \dots x_d$

$$P(X_i | y=k) = N(\mu_{ik}, \delta_i)$$

$-1/+1$

Independent

VARIANCE CLASS

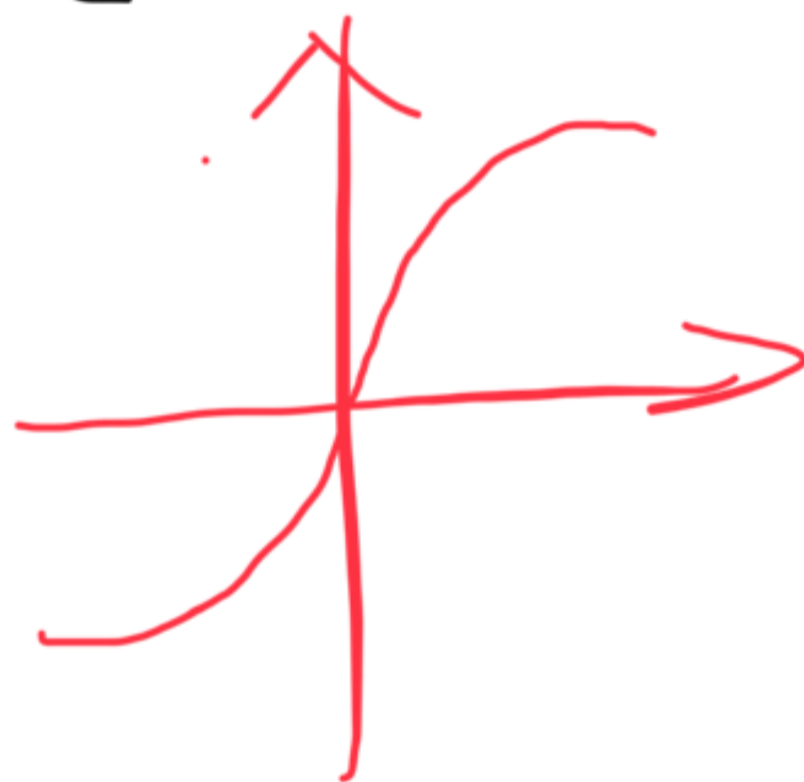
Sick

GMB \Rightarrow LR

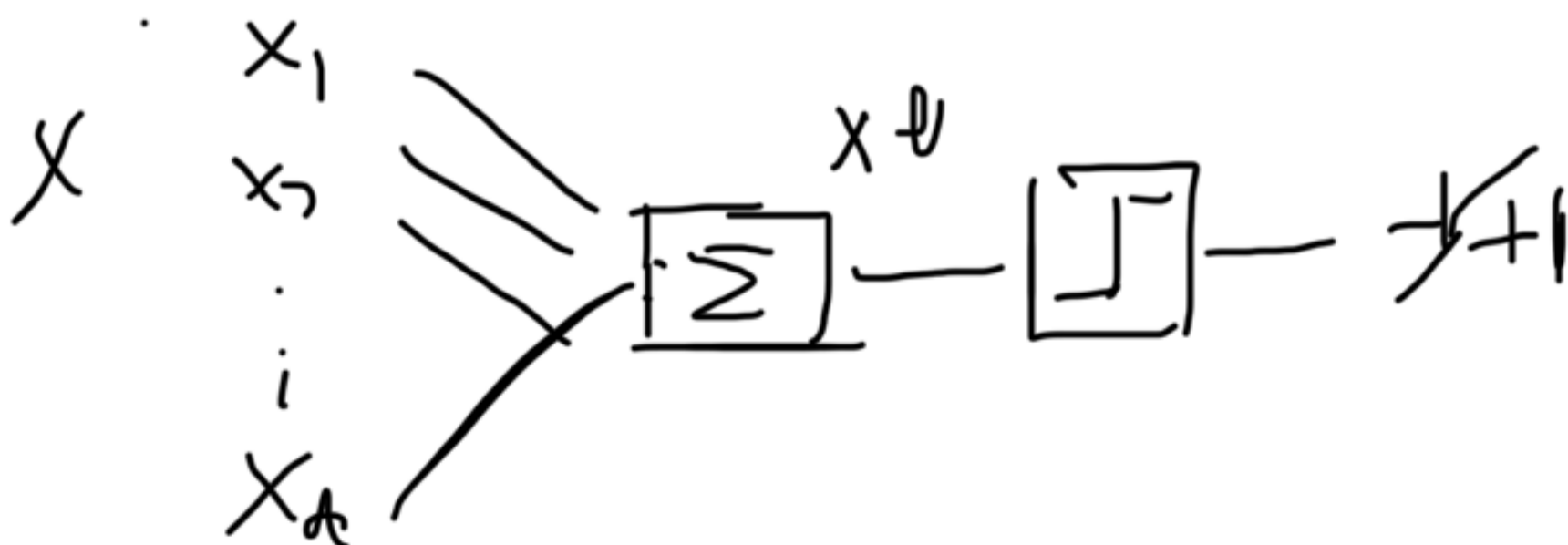
$\frac{\delta_i}{\delta_i}$

$P(Y=k|X) = \frac{1}{1 + e^{-x\theta}}$

$g(s) = \frac{1}{1 + e^{-s}}$



$\log \frac{P}{1-P} = x\theta$



$$X \quad \dots \quad x_n \quad \rightarrow \quad \boxed{\Sigma} \quad - \quad \boxed{\Omega} \quad - \quad \frac{1}{k+1}$$
$$d = \frac{1}{1+e}$$
