#2.2 Logistic Regression

- 2. Given x, want $\hat{y} = P(y=1|x)$ ($\hat{y}$: y hat)

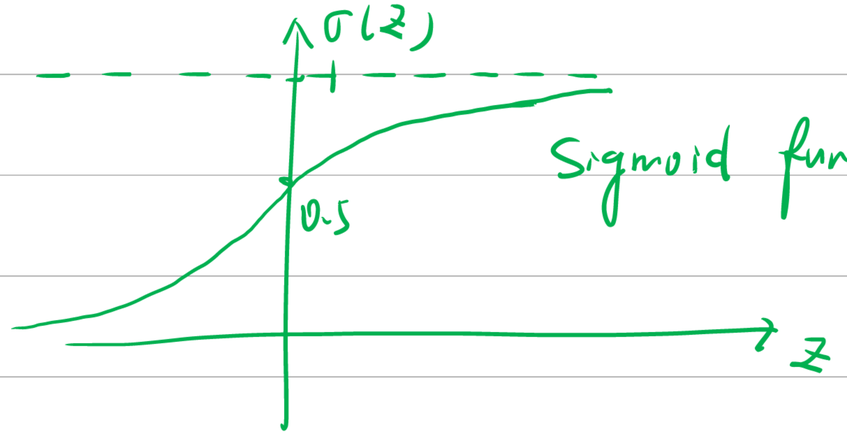
$x \in \mathbb{R}^{n_x}$

$0 \le \hat{y} \le 1$

- Parameters: $w = \mathbb{R}^{n_x}$, $b \in \mathbb{R}$ (b: an interceptor 拦截器)

- Output: $\hat{y} = \sigma(w^T x + b)$

w: $1 \times n_x$, x: $n_x \times 1$



$$\sigma(z) = \frac{1}{1+e^{-z}}$$