

#### deeplearning.ai

## Basics of Neural Network Programming

### Logistic Regression

#### Logistic Regression



deeplearning.ai

## Basics of Neural Network Programming

# Logistic Regression cost function

#### Logistic Regression cost function

$$\hat{y} = \sigma(w^T x + b)$$
, where  $\sigma(z) = \frac{1}{1 + e^{-z}}$ 

Given 
$$\{(x^{(1)}, y^{(1)}), \dots, (x^{(m)}, y^{(m)})\}$$
, want  $\hat{y}^{(i)} \approx y^{(i)}$ .

Loss (error) function: