Binary Classification

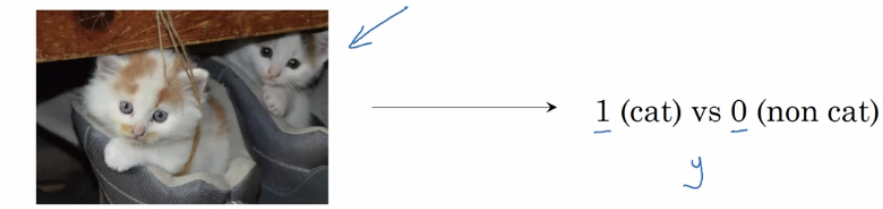

Figure 1: Example 1

Notation

(x, y) - (feature, label)

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

$y \in \{0, 1\}$

m training examples: $(x^{(1)}, y^{(1)}), (x^{(2)}, y^{(2)}), \ldots, (x^{(3)}, y^{(3)})$

$m = m_{train}$

m_{test} = test example

$$X = \begin{bmatrix} | & | & & | \\ x^{(1)} & x^{(2)} & \ldots & x^{(m)} \\ | & | & & | \end{bmatrix}$$

$X \in \mathbb{R}^{n_x * m}$

$Y = [y^{(1)}, y^{(2)}, \ldots, y^{(m)}]$

$Y \in \mathbb{R}^{1 * m}$