

Cajamar, 22 de outubro de 2018

$$J_{a,b} = \frac{1}{2n} \sum_{i=1}^n (ax_i + b - \hat{y}_i)^2$$

OCTAVE:  $J = \text{sum}((X * \text{theta} - y).^2) / (2 * m);$

$$\frac{\partial J_{a,b}}{\partial a} = \frac{1}{n} \sum_{i=1}^n (ax_i + b - \hat{y}_i) \cdot x_i$$

$$\frac{\partial J_{a,b}}{\partial b} = \frac{1}{n} \sum_{i=1}^n (ax_i + b - \hat{y}_i) \cdot 1$$

$$a_{i+1} = a_i - \alpha \cdot \frac{\partial J_{a,b}}{\partial a}$$

$$b := b - \alpha \cdot \frac{\partial J_{a,b}}{\partial b}$$