

Updating formula on GD

$$\frac{\partial}{\partial \theta_i} J(\Theta) = \frac{1}{m} \sum_{i=1}^m (h_{\Theta}(x^i) - y^i) x_i$$

Therefore,

$$\theta_i := \theta_i - \alpha \frac{1}{m} \sum_{i=1}^m (h_{\Theta}(x^i) - y^i) x^i$$