Practice quiz: Gradient descent for logistic regression

Graded Quiz • 30 min

1. **1 / 1 point**

Gradient descent for logistic regression

repeat {

$$w_j = w_j - \alpha \left[\frac{1}{m} \sum_{i=1}^{m} (f_{\vec{w},b}(\vec{x}^{(i)}) - y^{(i)}) x_j^{(i)} \right]$$

$$b = b - \alpha \left[\frac{1}{m} \sum_{i=1}^{m} (f_{\vec{w},b}(\vec{x}^{(i)}) - y^{(i)}) \right]$$

} simultaneous updates

$$f_{\vec{w},b}(\vec{x}) = \frac{1}{1 + e^{-(\vec{w} \cdot \vec{x} + b)}}$$

Which of the following two statements is a more accurate statement about gradient descent for logistic regression?

- ○ The update steps are identical to the update steps for linear regression.
- ◉ The update steps look like the update steps for linear regression, but the definition of $f_{\vec{w},b}(\mathbf{x}^{(i)})$ is different.

✓ **Correct**