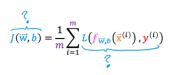
Congratulations! You passed!

Grade received 100% Latest Submission Grade 100%

To pass 80% or higher



In this lecture series, "cost" and "loss" have distinct meanings. Which one applies to a single training example?

✓ Loss

○ Correct In these lectures, loss is calculated on a single training example. It is worth noting that this definition is not universal. Other lecture series may have a different definition. $% \left(\frac{1}{2}\right) =\frac{1}{2}\left(\frac{1}{2}\right) \left(\frac{1}{2}\right) \left($

- ☐ Cost
- ☐ Both Loss and Cost
- ☐ Neither Loss nor Cost

Simplified loss function

$$\begin{split} L\left(f_{\vec{W},b}(\vec{\mathbf{x}}^{(t)}),\mathbf{y}^{(t)}\right) &= \begin{cases} -\log\left(f_{\vec{W},b}(\vec{\mathbf{x}}^{(t)})\right) & \text{if } \mathbf{y}^{(t)} = 1\\ -\log\left(1 - f_{\vec{W},b}(\vec{\mathbf{x}}^{(t)})\right) & \text{if } \mathbf{y}^{(t)} = 0 \end{cases} \\ L\left(f_{\vec{W},b}(\vec{\mathbf{x}}^{(t)}),\mathbf{y}^{(t)}\right) &= -\mathbf{y}^{(t)}\log\left(f_{\vec{W},b}(\vec{\mathbf{x}}^{(t)})\right) - (1 - \mathbf{y}^{(t)})\log\left(1 - f_{\vec{W},b}(\vec{\mathbf{x}}^{(t)})\right) \end{cases} \end{split}$$

For the simplified loss function, if the label $\boldsymbol{y}^{(i)} = \mathbf{0}$, then what does this expression simplify to?

- $\bigcirc \ \log(1-f_{\vec{\mathbf{w}},b}(\mathbf{x}^{(i)})) + log(1-f_{\vec{\mathbf{w}},b}(\mathbf{x}^{(i)}))$
- \bigcirc $-\log(1 f_{\vec{w},b}(\mathbf{x}^{(i)}))$
- $\bigcirc \ -\log(1-f_{\tilde{\mathbf{w}},b}(\mathbf{x}^{(i)})) log(1-f_{\tilde{\mathbf{w}},b}(\mathbf{x}^{(i)}))$
- $\bigcirc \log(f_{\vec{w},b}(\mathbf{x}^{(i)})$
- \odot Correct When $y^{(i)}=0$, the first term reduces to zero.

1/1 point

1/1 point