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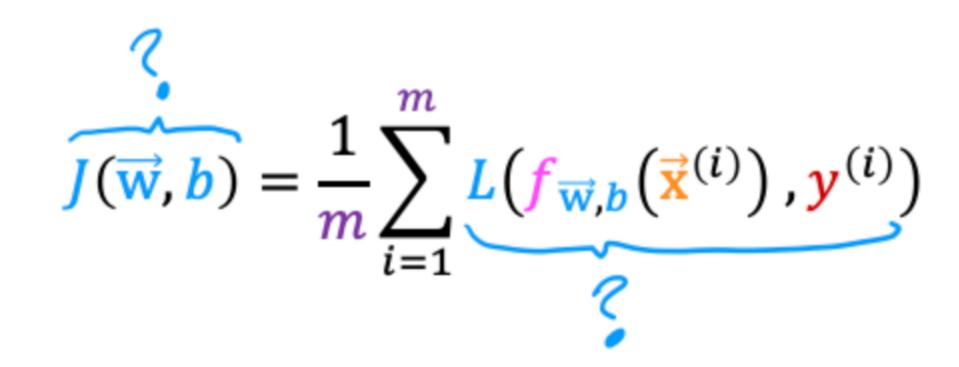
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1



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.

Cost

2.

- Both Loss and Cost
- Neither Loss nor Cost

1/1 point

Simplified loss function

$$L(f_{\overrightarrow{\mathbf{w}},b}(\overrightarrow{\mathbf{x}}^{(i)}), \mathbf{y}^{(i)}) = \begin{cases} -\log(f_{\overrightarrow{\mathbf{w}},b}(\overrightarrow{\mathbf{x}}^{(i)})) & \text{if } \mathbf{y}^{(i)} = 1\\ -\log(1 - f_{\overrightarrow{\mathbf{w}},b}(\overrightarrow{\mathbf{x}}^{(i)})) & \text{if } \mathbf{y}^{(i)} = 0 \end{cases}$$

$$L(f_{\overrightarrow{\mathbf{w}},b}(\overrightarrow{\mathbf{x}}^{(i)}), \mathbf{y}^{(i)}) = -\mathbf{y}^{(i)}\log(f_{\overrightarrow{\mathbf{w}},b}(\overrightarrow{\mathbf{x}}^{(i)})) - (1 - \mathbf{y}^{(i)})\log(1 - f_{\overrightarrow{\mathbf{w}},b}(\overrightarrow{\mathbf{x}}^{(i)}))$$

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

$$\bigcirc -\log(1-f_{ec{\mathbf{w}},b}(\mathbf{x}^{(i)})) - log(1-f_{ec{\mathbf{w}},b}(\mathbf{x}^{(i)}))$$

$$\bigcirc \ \log(1-f_{ec{\mathbf{w}},b}(\mathbf{x}^{(i)})) + log(1-f_{ec{\mathbf{w}},b}(\mathbf{x}^{(i)}))$$

$$igotimes -\log(1-f_{ec{\mathbf{w}},b}(\mathbf{x}^{(i)}))$$

$$igcirc$$
 $\log(f_{ec{w},b}(\mathbf{x}^{(i)})$

⊘ Correct

When $y^{(i)}=0$, the first term reduces to zero.