Hyperparameter tuning, Batch Normalization, Programming 10/10 points Frameworks (100%)

Quiz, 10 questions

✓ Congratulations! You passed!	Next Item
1/1 point 1.	
If searching among a large number of hyperparameters, you should random values, so that you can carry out the search more systematic True or False?	
True	
False	
Correct	
1/1 point	
2. Every hyperparameter, if set poorly, can have a huge negative impact hyperparameters are about equally important to tune well. True or F	_
True	
False	
Correct Yes. We've seen in lecture that some hyperparameters, such as the critical than others.	e learning rate, are more

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_	hyperparameter search, whether you try to babysit one model ("Panda" strategy) or train a nodels in parallel ("Caviar") is largely determined by:
\bigcirc	Whether you use batch or mini-batch optimization
\bigcirc	The presence of local minima (and saddle points) in your neural network
	The amount of computational power you can access
Corre	ect
0	The number of hyperparameters you have to tune
~	1/1 point
-	hink eta (hyperparameter for momentum) is between on 0.9 and 0.99, which of the following is
the rec	ommended way to sample a value for beta?
	1 r = np.random.rand() 2 beta = r*0.09 + 0.9
	1 r = np.random.rand() 2 beta = 1-10**(- r - 1)
Corre	ect
	1 r = np.random.rand() 2 beta = 1-10**(- r + 1)

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Quiz, 1

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/	1 / 1 point
ne start	good hyperparameter values is very time-consuming. So typically you should do it once at of the project, and try to find very good hyperparameters so that you don't ever have to ining them again. True or false?
O -	True
	False
Correc	rt
/	1/1 point
	normalization as presented in the videos, if you apply it on the \emph{l} th layer of your neural , what are you normalizing?
	$z^{[l]}$
Correc	rt
O ,	$oldsymbol{W}^{[l]}$
	$oldsymbol{b}^{[l]}$
	$a^{[l]}$
_	

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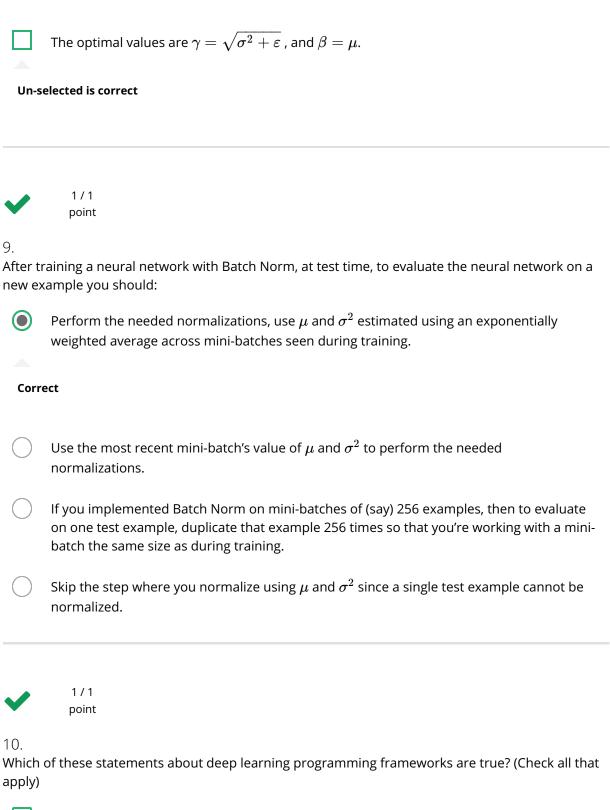
In the normalization formula $z_{norm}^{(i)}=rac{z^{(i)}-\mu}{\sqrt{\sigma^2+arepsilon}}$, why do we use epsilon?

	In case μ is too small	
O	To avoid division by zero	
Corre	ort	
COTT		
	To speed up convergence	
\bigcirc	To have a more accurate normalization	
	1/1	
	point	
8.		
Vhich	of the following statements about γ and eta in Batch Norm are true?	
	There is one global value of $\gamma\in\Re$ and one global value of $\beta\in\Re$ for each layer, and applies to all the hidden units in that layer.	
Un-se	elected is correct	
\checkmark	They set the mean and variance of the linear variable $z^{[l]}$ of a given layer.	
Corre	ect	
_		
Ш	eta and γ are hyperparameters of the algorithm, which we tune via random sampling.	
lln-s	placted is correct	
Un-selected is correct		
Ш	They can be learned using Adam, Gradient descent with momentum, or RMSprop, not just	

with gradient descent.

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Quiz, 10 questions



Even if a project is currently open source, good governance of the project helps ensure Hyperparameter tuning, Batch Normalization, Brogramming odified to Frameworks it only one company.

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Quiz,		questions	•

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C	prrect	
	Deep learning programming frameworks require cloud-based machines to run.	
ι	n-selected is correct	
	A programming framework allows you to code up deep learning algorithms with fewer lines of code than a lower-level language such as Python.	typically
•	orrect	

