Progress

Mentor

1 point

Unit 9 - Week 7

How does an NPTEL online

Course outline

course work?

Week 0

Week 1

Week 2

Week 3

week 4

Week 5

Week 6

Week 7

Bias and Variance

(Recap)

complexity

L2 regularization

Early stopping

Dropout

Week 8

Week 9

week 10

Week 11

Week 12

Download Videos

Text Transcripts

Score: 0

1

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○ 2ⁿ

Accepted Answers:

None of the above

Dropouts result in

Dropping out some units

It results in a thinned network

No, the answer is incorrect.

If the errors of the model are uncorrelated

Ensemble Methods

Train error vs Test error

Train error vs Test error

True error and Model

Dataset augmentation

Parameter sharing and tying

Adding Noise to the inputs

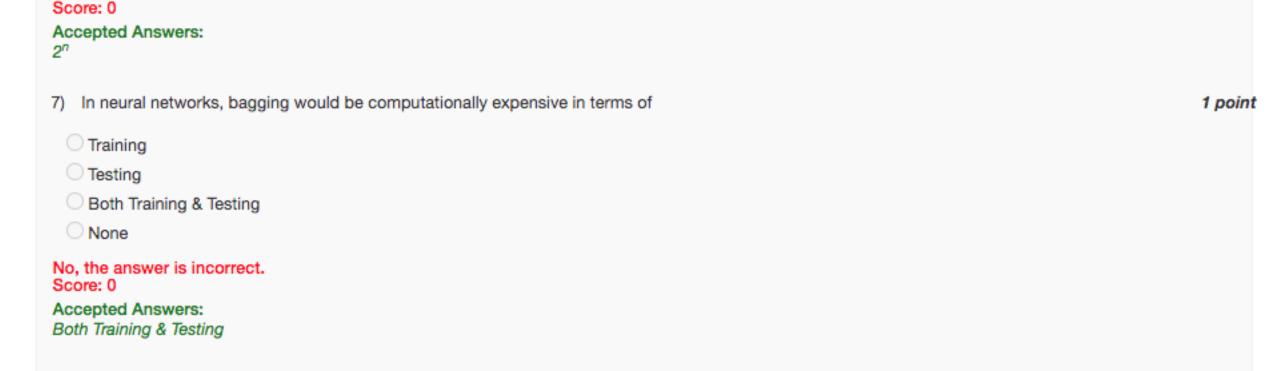
Adding Noise to the outputs

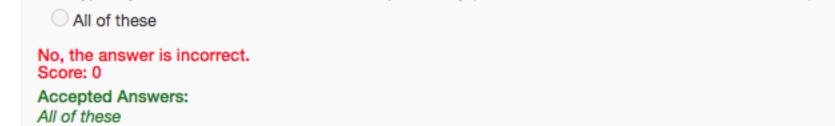
Lecture Material for Week 7

Quiz : Assignment 7

Week 7 Feedback

Assignment 7 Due on 2020-03-18, 23:59 IST. The due date for submitting this assignment has passed. As per our records you have not submitted this assignment. Which of the following statement(s) is/are correct with respect to the bias? Complex model has a low bias Simple model has a low bias Complex model has a high bias IV. Simple model has a high bias ○ ||, ||| \bigcirc I, II OI, IV No, the answer is incorrect. Score: 0 Accepted Answers: I, IV 2) Bias is defined as $\hat{f}(x) = E[\hat{f}(x)] - f(x)$ $\hat{f}(x) = 1 - f(x)$ $\hat{f}(x) = f(x)$ None of these No, the answer is incorrect. Score: 0 Accepted Answers: $\hat{f}(x) = E[\hat{f}(x)] - f(x)$ 3) Given y_i as actual output units and \hat{y}_i as predicted output units. Which of the following equation is used to compute empirical estimation? $E(\hat{y}_i - y_i) = \frac{1}{m} \sum_{i=1}^{m} (\hat{y}_i - y_i)$ $E(\hat{y}_i - y_i)^2 = \frac{1}{m} \sum_{i=1}^m (\hat{y}_i - y_i)^2$ $E(\hat{y}_i - y_i) = \sum_{i=1}^m (\hat{y}_i - y_i)$ None of these No, the answer is incorrect. Accepted Answers: $E(\hat{y}_i - y_i)^2 = \frac{1}{m} \sum_{i=1}^m (\hat{y}_i - y_i)^2$ 4) Data augmentation works for Object recognition Image classification Speech recognition All of these No, the answer is incorrect. Score: 0 Accepted Answers: All of these 5) When would bagging work? If the errors of the model are perfectly correlated If the errors of the model are uncorrelated If the errors of the model are moderately correlated None of these No, the answer is incorrect.



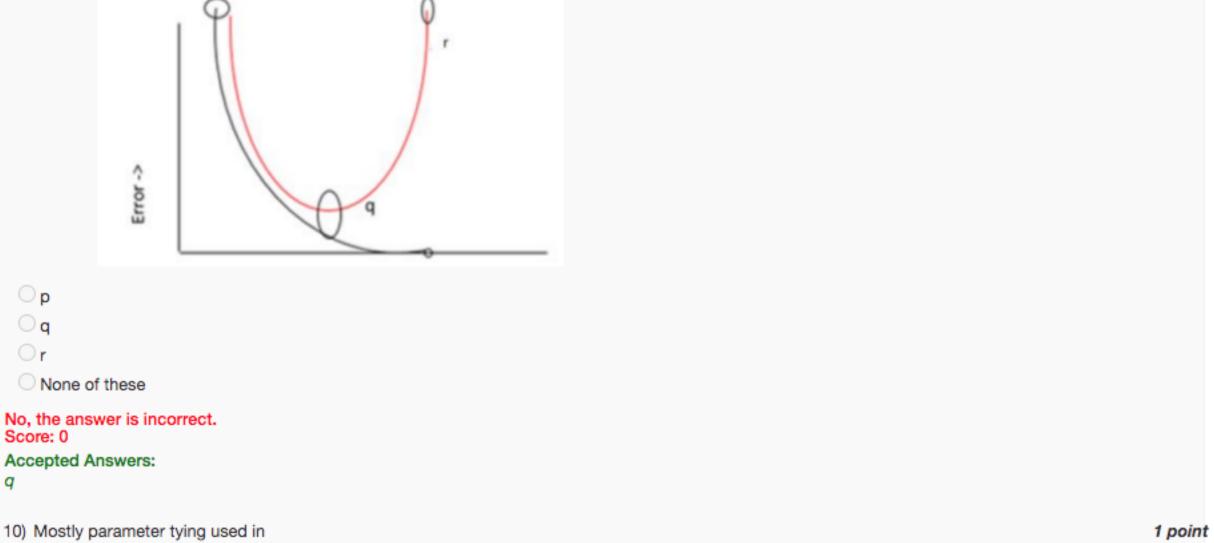


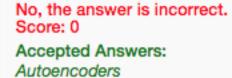
Typically, each node is retained with fixed probability (0.5 for hidden units and 0.8 for visible nodes)

6) In dropouts, given a total of n nodes, what are the total number of thinned networks that can be formed?



9) While training a neural network for face recognition, mention the most appropriate place for early stopping.





Autoencoders

All of these

Convolutional neural networks

Recurrent neural networks