✓ **축하합니다! 통과하셨습니다!**

받은 학점 100%   최신 제출물 학점 100%   통과 점수: 80% 이상

다음 항목으로 이동

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1. If you have 20,000,000 examples, how would you split the train/dev/test set? Choose the best option.   1 / 1점

- ● 99% train. 0.5% dev. 0.5% test.
- ○ 90% train. 5% dev. 5% test.
- ○ 60% train. 20% dev. 20% test.

[↗ 더 보기]

✓ **맞습니다**
Yes. Given the size of the dataset, 0.5% of the samples are enough to get a good estimate of how well the model is doing.

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2. When designing a neural network to detect if a house cat is present in the picture, 500,000 pictures of cats were taken by their owners. **These are used to make the training, dev and test sets.** It is decided that to increase the size of the test set, 10,000 new images of cats taken from security cameras are going to be used in the test set. Which of the following is true?   1 / 1점

- ● This will be harmful to the project since now dev and test sets have different distributions.
- ○ This will reduce the bias of the model and help improve it.
- ○ This will increase the bias of the model so the new images shouldn't be used.

[↗ 더 보기]

✓ **맞습니다**
Yes. The quality and type of images are quite different thus we can't consider that the dev and the test sets came from the same distribution.

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3. A model developed for a project is presenting high bias. One of the sponsors of the project offers some resources that might help reduce the bias. Which of the following additional resources has a better chance to help reduce the bias?   1 / 1점

- ○ Gather more data for the project.
- ● Give access to more computational resources like GPUs.
- ○ Use different sources to gather data and better test the model.

[↗ 더 보기]

✓ **맞습니다**
Yes. This can allow the developers to try bigger networks, train for more cycles, and test different architectures.

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4. Working on a model to classify bananas and oranges your classifier gets a training set error of 0.1% and a dev set error of 11%. Which of the following two are true?   1 / 1점

- ☑ The model is overfitting the train set.

  ✓ **Correct**
  Yes. This is precisely what happens when overfitting.

- ☑ The model has a high variance.

  ✓ **Correct**
  No. This model has a low bias and high variance.

- ☐ The model is overfitting the dev set.

- ☐ The model has a very high bias.

[↗ 더 보기]

✓ **맞습니다**
Great, you got all the right answers.

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5. Which of the following are regularization techniques?   1 / 1점

- ☐ Increase the number of layers of the network.

- ☑ Weight decay.

  ✓ **Correct**
  Correct. Weight decay is a form of regularization.

- ☐ Gradient Checking.

- ☑ Dropout.

  ✓ **Correct**
  Correct. Using dropout layers is a regularization technique.

[↗ 더 보기]

✓ **맞습니다**
Great, you got all the right answers.

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6. The regularization hyperparameter must be set to zero during testing to avoid getting random results. True/False?   1 / 1점

- ○ True
- ● False

[↗ 더 보기]

7. Which of the following are true about dropout?   `1 / 1점`

☑ In practice, it eliminates units of each layer with a probability of 1- keep_prob.

✓ **Correct**
Correct. The probability that dropout doesn't eliminate a neuron is keep_prob.

☑ It helps to reduce overfitting.

✓ **Correct**
Correct. The dropout is a regularization technique and thus helps to reduce the overfit.

☐ In practice, it eliminates units of each layer with a probability of keep_prob.

☐ It helps to reduce the bias of a model.

[⤢ 더 보기]

⊘ 맞습니다
Great, you got all the right answers.

8. Increasing the parameter keep_prob from (say) 0.5 to 0.6 will likely cause the following: (Check the two that apply)   `1 / 1점`

☐ Increasing the regularization effect

☑ Reducing the regularization effect

✓ **Correct**

☐ Causing the neural network to end up with a higher training set error

☑ Causing the neural network to end up with a lower training set error

✓ **Correct**

[⤢ 더 보기]

⊘ 맞습니다
Great, you got all the right answers.

9. Which of these techniques are useful for reducing variance (reducing overfitting)? (Check all that apply.)   `1 / 1점`

☑ Dropout

✓ **Correct**

☐ Exploding gradient

☑ L2 regularization

✓ **Correct**

☐ Xavier initialization

☐ Vanishing gradient

☑ Data augmentation

✓ **Correct**

☐ Gradient Checking

[⤢ 더 보기]

⊘ 맞습니다
Great, you got all the right answers.

10. Which of the following is the correct expression to normalize the input x?   `1 / 1점`

○ $x = \frac{x}{\sigma}$

○ $x = \frac{1}{m} \sum_{i=1}^{m} (x^{(i)})^2$

○ $x = \frac{1}{m} \sum_{i=1}^{m} x^{(i)}$

⦿ $x = \frac{x - \mu}{\sigma}$

[⤢ 더 보기]

⊘ 맞습니다
Correct. This shifts the mean of the input to the origin and makes the variance one in each coordinate of the input examples.