



Unit 7 - Week 4

Register for
Certification exam

Course outline

How to access
the portal

Matlab and
Learning
Modules

Pre-Requisite
assignment

Week 1

Week 2

Week 3

Week 4

- The Learning Paradigm
- A Linear Regression Example
- Linear Regression Least Squares Gradient Descent
- Coding Linear Regression
- Generalized Function for Linear Regression
- Goodness of Fit
- Bias-Variance Trade Off
- Gradient Descent Algorithms
- Quiz : Assignment 4

Assignment 4

The due date for submitting this assignment has passed. **Due on 2019-02-27, 23:59 IST.**
As per our records you have not submitted this assignment.

1) 1 point

-
-
-
-

No, the answer is incorrect.
Score: 0

Accepted Answers:

2) 1 point

-
-
-
-

No, the answer is incorrect.
Score: 0

Accepted Answers:

3) Which of the following statements are True? Check all that apply: 1 point

- If a learning algorithm is suffering from high bias, only adding more training examples may **not** improve the test error significantly.
- A model with more parameters is more prone to overfitting and typically has a higher variance.
- When debugging learning algorithms, it is useful to plot a learning curve to understand if there is a high bias or high variance problem.
- Increasing degree of the polynomial in curve fitting will increase the bias in the model

No, the answer is incorrect.
Score: 0

Accepted Answers:

*If a learning algorithm is suffering from high bias, only adding more training examples may **not** improve the test error significantly.*
A model with more parameters is more prone to overfitting and typically has a higher variance.
When debugging learning algorithms, it is useful to plot a learning curve to understand if there is a high bias or high variance problem.

Additional Materials

Week - 4 Feedback Form

Week 5

Week 6

Week 7

Week 8

Week 9

Week 10

Week 11

Week 12

Download Videos

TEXT TRANSCRIPTS

Interaction session

4) The figure below shows the plot of the learning curves of a learning algorithm. It is found that it has an unacceptably high error on the test set. What is the algorithm suffering? **1 point**

- High Variance
 High Bias
 High Variance and Low bias
 None

No, the answer is incorrect.

Score: 0

Accepted Answers:

High Bias

5) Suppose you have implemented a regularized linear regression model. You observe that on the held out testing set, the model makes unacceptably large errors with its predictions. However, you observe that the model performs well (has a low error) on the training set. Which of the following steps can be incorporated to lower the error on testing dataset. Select all that apply. **1 point**

- Try using a smaller set of the features
 Try decreasing the regularization parameter λ
 Get more training examples
 Use fewer training examples

No, the answer is incorrect.

Score: 0

Accepted Answers:

Try using a smaller set of the features

Get more training examples

6) Suppose you have implemented a regularized linear regression model. You observe that on the held out testing set, the model makes unacceptably large errors with its predictions. Furthermore, you observe that the model performs **poorly** on the training set. Which of the following steps can be incorporated to lower the error on the testing dataset. Select all that apply. **1 point**

- Try to obtain an additional set of features
 Try increasing the regularization parameter λ
 Get more training examples
 Try adding polynomial features

No, the answer is incorrect.

Score: 0

Accepted Answers:

Try to obtain an additional set of features

Get more training examples

7) Suppose you are training a regularized linear regression model. Check which of the following statements are true? Select all that apply. **1 point**

- The regularization parameter λ value is chosen so as to give the lowest training set error
 The regularization parameter λ value is chosen so as to give the lowest cross validation error
 The regularization parameter λ value is chosen so as to give the lowest test set error
 The performance of a learning algorithm on the training set will typically be better than its performance on the test set

No, the answer is incorrect.

Score: 0

Accepted Answers:

The regularization parameter λ value is chosen so as to give the lowest cross validation error

The performance of a learning algorithm on the training set will typically be better than its performance on the test set

8)

1 point

- 1.03125
- 2.03125
- 3.03125
- 4.03125

No, the answer is incorrect.

Score: 0

Accepted Answers:

2.03125

9)

1 point

-
-
-
-

No, the answer is incorrect.

Score: 0

Accepted Answers:

10)What is the cost now?

1 point

- 0.4292
- 1.4292
- 2.4292
- 3.4292

No, the answer is incorrect.

Score: 0

Accepted Answers:

0.4292

[Previous Page](#)[End](#)

© 2014 NPTEL - Privacy & Terms - Honor Code - FAQs -

A project of



In association with



Funded by

Government of India
Ministry of Human Resource Development

Powered by

