

On Thursday, February 16th at 6:00AM EST, UTC-5, we will be conducting a brief database maintenance. The event should last about 5 minutes.



Bookmarks

- ▶ Artificial Intelligence Course: Getting Started
- ▶ Week 1: Introduction to AI
- ▶ Week 2: Intelligent Agents and Uninformed Search
- ▶ Week 3: Heuristic Search
- ▶ Week 4: Adversarial Search and Games
- ▼ **Week 5: Machine Learning 1**

Week 5: Suggested Readings

5.1 Machine Learning Concepts

5.2 K-nearest Neighbors and Training-Testing

Overfitting-Underfitting and Regularization

Week 5: Machine Learning 1 > Week 5 Quiz: Machine Learning > Week 5 Quiz

Week 5 Quiz

Bookmark this page

Checkboxes

10/10 points (graded)

Suppose you derived a classification model. The performance you obtained on the training set and the test set are both poor (large error). Check all that apply.

☒ The model suffers from high-bias. ✓☐ The model overfits the data.☒ Adding more complex features may help derive a better model. ✓

Submit

You have used 1 of 1 attempt

✓ Correct (10/10 points)

Multiple Choice

10/10 points (graded)

The in-sample error (error of a learning algorithm on the training set) is typically lower than the out-sample error on a test set.

☒ True ✓☐ False


Submit

You have used 1 of 1 attempt

5.4 Linear Models for Regression

Week 5 Quiz:

Machine Learning

Quiz due Apr 11, 2017
05:00 IST 

Week 5 Discussion Questions

✓ Correct (10/10 points)

Multiple Choice

10/10 points (graded)

We can get multiple local optima if we perform a linear regression by minimizing the mean square error.

☐ True

☒ False ✓

Submit

You have used 1 of 1 attempt

✓ Correct (10/10 points)

Multiple Choice

10/10 points (graded)

With K-NN, one can represent only linear decision boundaries.

☐ True

☒ False ✓

Submit

You have used 1 of 1 attempt

✓ Correct (10/10 points)

Multiple Choice

10/10 points (graded)

If the performance of a classification model on the test set is poor, you can just re-calibrate your model parameters to achieve a better model.

☐ True

☒ False ✓

Submit

You have used 1 of 1 attempt

✓ Correct (10/10 points)

Multiple Choice

10/10 points (graded)

The examples in a validation set are used to train the classification model.

☐ True

☒ False ✓

Submit

You have used 1 of 1 attempt

✓ Correct (10/10 points)

Multiple Choice

10/10 points (graded)

To learn a regression model you can either use gradient descent or normal equation.

☒ True ✓

☐ False

Submit

You have used 1 of 1 attempt

✓ Correct (10/10 points)

Multiple Choice

10/10 points (graded)

Because it is straightforward to calculate in just one step, using normal equation is the preferred method when the feature space is large (e.g., 10,000 features).

☐ True

☒ False ✓

Submit

You have used 1 of 1 attempt

✓ Correct (10/10 points)

Multiple Choice

10/10 points (graded)

If the learning rate α is small enough, gradient descent converges very quickly.

☐ True

☒ False ✓

Submit

You have used 1 of 1 attempt

✓ Correct (10/10 points)

Checkboxes

10/10 points (graded)

What is the difference between classification and regression? Check all that apply.

☐ Classification requires labeled data, while regression requires unlabeled data.

☐ Classification has numerical values as labels while regression has categorical (discrete) labels.

☒ Regression has numerical values as labels while classification has categorical (discrete) labels. ✓



Submit

You have used 1 of 1 attempt

✓ Correct (10/10 points)

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