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.



ColumbiaX: CSMM.101x Artificial Intelligence (AI)

Help



 Artificial Intelligence Course: Getting Started

Week 1: Introduction to Al

- 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

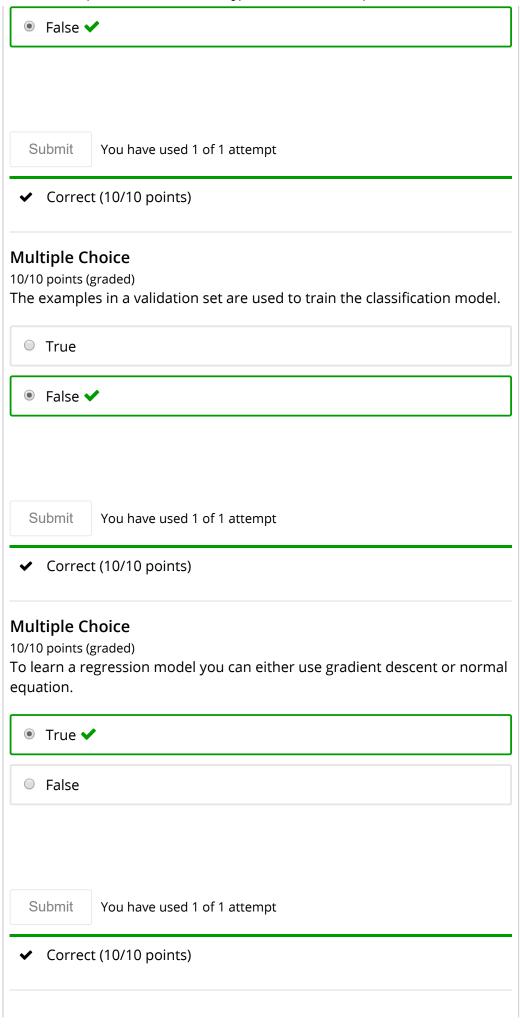
5.4 Linear Models for Regression

Week 5 Quiz: **Machine Learning**

Quiz due Apr 11, 2017 05:00 IST

Week 5 Discussion Questions

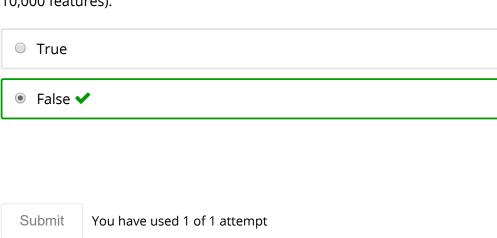
✓ Correct (10/10 points) **Multiple Choice** 10/10 points (graded) We can get multiple local optima if we perform a linear regression by minimizing the mean square error. True False Submit You have used 1 of 1 attempt ✓ Correct (10/10 points) **Multiple Choice** 10/10 points (graded) With K-NN, one can 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



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).



✓ Correct (10/10 points)

Multiple Choice

10/10 points (graded)

If the learning rate $\boldsymbol{\alpha}$ is small enough, gradient descent converges very quickly.

○ True



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

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Correct (10/10 points)

















