Congratulations! You passed!

Grade received 100% **To pass** 66% or higher

Go to next item

Intro to Machine Learning

Latest Submission Grade 100%

1. Supervised learning deals with unlabeled data, while unsupervised learning deals with labelled data. **3 / 3 points**

   Correct

2. The "Regression" technique in Machine Learning is a group of algorithms that are used for: **3 / 3 points**

   Correct

3. When comparing Supervised with Unsupervised learning, is this sentence True or False? **3 / 3 points**

   In contrast to Supervised learning, Unsupervised learning has more models and more evaluation methods that can be used in order to ensure the outcome of the model is accurate.

   Correct

Congratulations! You passed!

Grade received 100% **To pass** 66% or higher

Go to next item

Regression

Latest Submission Grade 100%

1. Which of the following is the meaning of "**Out of Sample Accuracy**" in the context of evaluation of models? **3 / 3 points**

Correct

2. When should we use **Multiple Linear Regression**? **3 / 3 points**

Correct

3. Which sentence is **NOT TRUE** about **Non-linear Regression**? **3 / 3 points**

Correct

Congratulations! You passed!

Grade received 75% **To pass** 66% or higher

Go to next item

Classification

Latest Submission Grade 75%

1. Which of the following examples is/are a sample application of Logistic Regression? (select all that apply) — 0.75 / 3 points

Incorrect

2. Which one is **TRUE** about the kNN algorithm? — 3 / 3 points

Correct

3. What is "**information gain**" in decision trees? — 3 / 3 points

Correct

Congratulations! You passed!

Grade received 100% **To pass** 66% or higher

Go to next item

Clustering

Latest Submission Grade 100%

1. Which of the following is an application of clustering? **3 / 3 points**

Correct

2. Which approach can be used to calculate dissimilarity of objects in clustering? **3 / 3 points**

Correct

3. How is a center point (centroid) picked for each cluster in k-means? **3 / 3 points**

Correct

Congratulations! You passed!

Grade received 100% **To pass** 66% or higher

Go to next item

Recommender System

Latest Submission Grade 100%

1. What is the meaning of "**Cold start**" in collaborative filtering? **3 / 3 points**

Correct

2. What is a "**Memory-based**" recommender system? **3 / 3 points**

Correct

3. What is the shortcoming of content-based recommender systems? **3 / 3 points**

Correct

Congratulations! You passed!

Grade received 90% **To pass** 75% or higher

Go to next item

Final Exam

Latest Submission Grade 90%

1. Which of the following is true about Machine Learning? **1 / 1 point**

- ○ Machine Learning models help us in tasks such as object recognition, summarization, and recommendation.
- ○ Machine Learning models iteratively learn from data and allow computers to find hidden insights.
- ○ Machine Learning was inspired by the learning process of human beings.
- ◉ All of the above.

Correct

2. Regression/Estimation, Classification, Clustering, and Associations are all examples of what? **1 / 1 point**

- ○ Neural Networks
- ○ Support Vector Machines
- ◉ Machine Learning techniques
- ○ Fuzzy Logic Systems

Correct

3. In which of the following would you use **Multiple Linear Regression**? **1 / 1 point**

- ○ Predicting population growth over time.
- ○ Predicting job performance of employees by number of sick days taken throughout a year.
- ○ Predicting weather based on month.
- ◉ Predicting the production of apples in an orchard based on temperature and rainfall.

Correct

4. Which of the following statements are **TRUE** about **Polynomial Regression**? 1 / 1 point

- [x] Polynomial regression models can fit using the Least Squares method.

Correct

- [x] Polynomial regression can use the same mechanism as Multiple Linear Regression to find the parameters.

Correct

- [x] Polynomial regression fits a curve line to your data.

Correct

5. Which of the below is a sample of classification problem? 0 / 1 point

- ( ) To predict the category to which a customer belongs to.
- ( ) To predict whether a customer switches to another provider/brand.
- ( ) To predict whether a customer responds to a particular advertising campaign or not.
- (•) All of the above

Incorrect

6. Which of the following statements are **TRUE** about Logistic Regression? (select all that apply) 1 / 1 point

- [x] Logistic regression can be used both for binary classification and multi-class classification

Correct

- [x] Logistic regression is analogous to linear regression but takes a categorical/discrete target field instead of a numeric one.

Correct

- [x] In logistic regression, the dependent variable is binary.

Correct

7. Which statement is **NOT TRUE** about k-means clustering? 1 / 1 point

7. Which statement is **NOT TRUE** about k-means clustering? **1 / 1 point**

- ○ k-means divides the data into non-overlapping clusters without any cluster-internal structure.
- ○ The objective of k-means, is to form clusters in such a way that similar samples go into a cluster, and dissimilar samples fall into different clusters.
- ◉ As k-means is an iterative algorithm, it guarantees that it will always converge to the global optimum.

Correct

8. Which of the following is NOT a characteristic of DBSCAN? **1 / 1 point**

- ○ DBSCAN can find arbitrarily shaped clusters.
- ○ DBSCAN does not require one to specify the number of clusters such as k in k-means.
- ○ DBSCAN can find a cluster completely surrounded by a different cluster.
- ◉ DBSCAN is well suited to hierarchical data, such as taxonomies.

Correct

9. A _____ system provides a better experience for the user by giving them a broader exposure to many different products they might be interested in. **1 / 1 point**

- ○ Reinforcement
- ◉ Recommender
- ○ Relationship
- ○ Resource

Correct

10. Which of the following is NOT true regarding content-based recommendation systems? **1 / 1 point**

- ○ Content-based recommendation system tries to recommend items based on similarity among items.
- ○ Content-based recommendation system tries to recommend items based on the similarity of users when buying, watching, or enjoying something.
- ○ Content-based recommendation system tries to recommend items based on the preferences of people living in your area.
- ◉ All of the above.

- (●) As k-means is an iterative algorithm, it guarantees that it will always converge to the global optimum.

Correct

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- ( ) Content-based recommendation system tries to recommend items based on the preferences of people living in your area.
- (●) All of the above.

Correct