machine learning cheatsheet

his attempt took 32 minutes.

Question 1	1 / 1 pts
What is gradient descent?	
Computation of the loss	
Computation of the gradient	
Computation of the weight update	
Computation of the output	

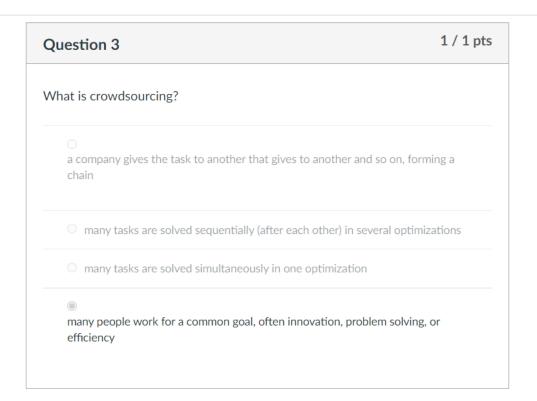
what is gradient descent

Question 2	1 / 1 pts
What is the curse of dimensionality?	
the larger the dimension of the problem, the larger the number of dep variables	pendent
 search space increases exponentially with the number of dimension 	ins
O the dimension of the search space decreases with the number of v	variables
in a bounded world, the volume of a sphere of radius 1 increases with number of dimensions	the

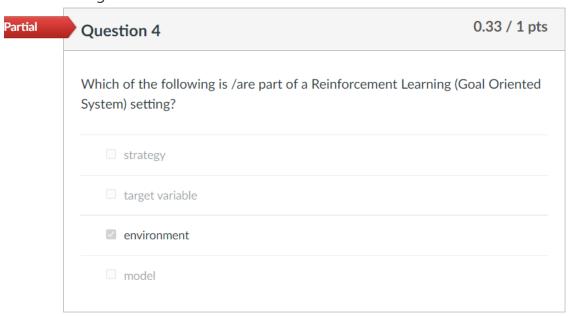
what is the curse of dimensionality

-inal exam 2021, 12, 29, IK

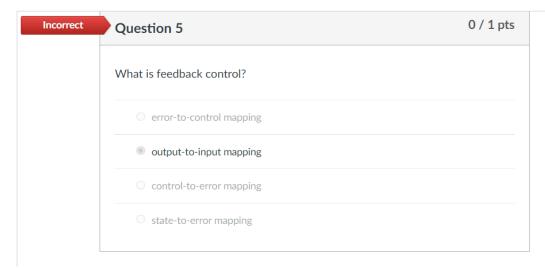
3eridze Laila (TPX2HJ) submitted Dec 29, 2021 at 9:03am



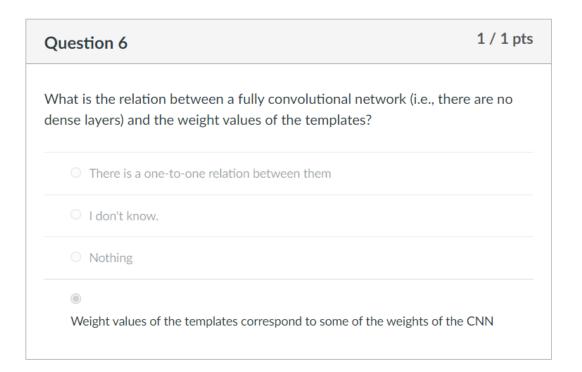
crowdsourcing



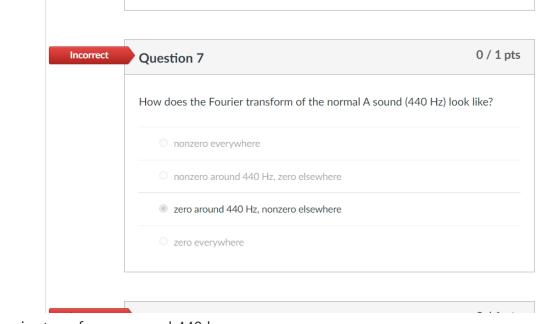
reinforcement learning



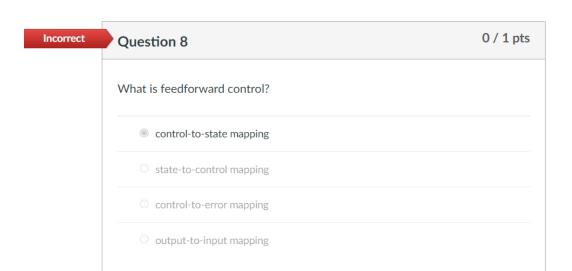
feedback control



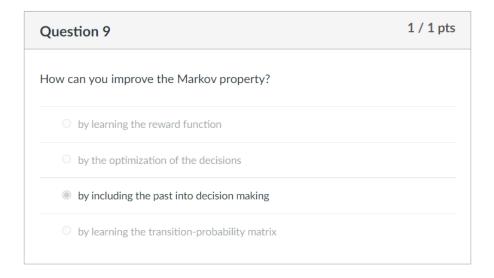
convolutional network



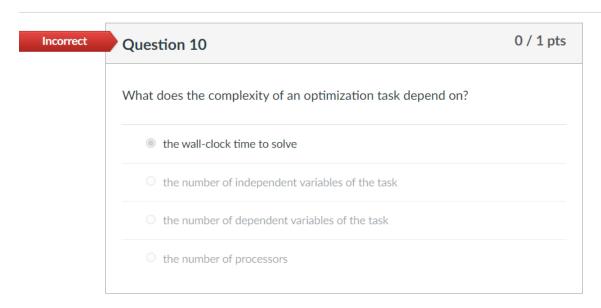
fourier transform a sound 440 hz



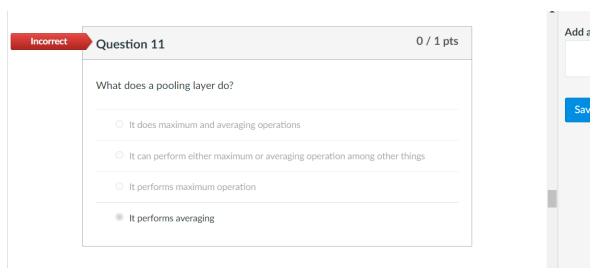
feedforward control



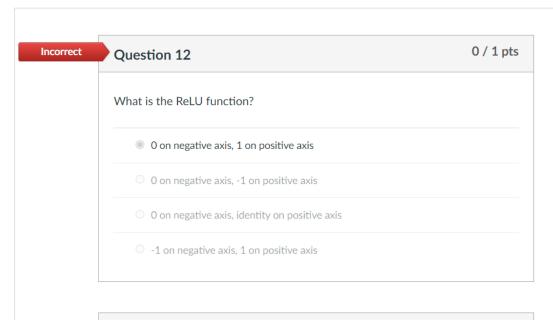
markov property



complexity of optimization



pooling layer



relu function

Question 14

1 / 1 pts

What is the result of average_pooling(A), where pooling window = 2x2, stride=2, and

A =

2	3	4	1
2	3	5	2
2	3	8	1
2	3	6	3

- 0 [4.5, 2.5, 3, 2]
- [2.5, 3, 2.5, 4.5]
- [2, 3, 3, 4.5]
- [2.5, 3.1, 4.6, 2]

average pooling window stride

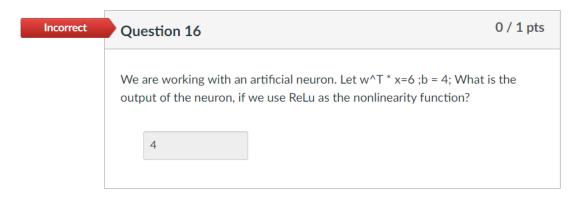
Question 15

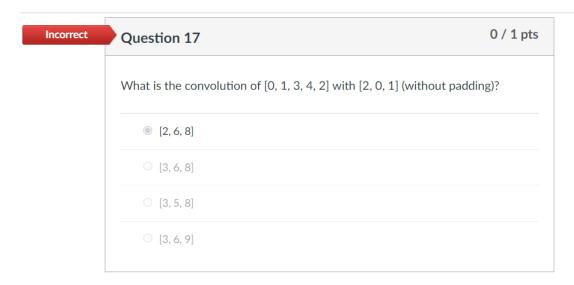
1 / 1 pts

Vector A = [3, 4, 5], B = [1, 2, 3] What is A*B (dot product)?

26

dot product





convolution padding

Question 18 3 / 3 pts

What is an autoencoder and what can it be used for? The first 10 words are rated.

Your Answer:

it compresses the input in a much smaller dimension and then decompresses it and tries to get it as close to the input as possible. Is used for image compression, image denoising etc.

autoencoder

Question 19 1.5 / 3 pts

Why is it difficult to legislate against artificial intelligence? List three problems.

Your Answer:

Algorithm transparency

Cybersecurity vulnerabilities

unfairness

legislate against artificial intelligence

Question 20 3 / 3 pts

What tasks can artificial intelligence perform? What are the professions it can replace? List at least three!

Your Answer:

Al can be used for automating business process, gaining insight through data analysis, engaging with customers and employees.

it can replace

Customer service executives. Customer service executives don't require a high level of social or emotional intelligence to perform. Bookkeeping and data entry. Receptionists.

artificial intelligence perform