Quiz 10
Problem 1

1/1 point (graded)
True or false: Autoencoding is a destructive process, meaning that it is not possible to get an approximation to the original data point given its latent representation.

○ True

● False

✔

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Problem 2

1/1 point (graded)
For the k-means autoencoder, what is the hidden representation of the data that we hope to reveal?

○ The projection for a data point onto a different vector

○ The location of the mean for the cluster that each data point belongs to

● The cluster label that each data point belongs to

○ The squared distance from each data point to its mean

✔

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Problem 3

1/1 point (graded)
What is a "one-hot" encoding?

○ An encoding that cannot be changed as other encodings depend on it

○ An encoding that makes a single pass over the data set

● An encoding which produces a vector where a single element is 1, and the rest are all 0

○ A trivial encoding where every data point is mapped to the same value

✔

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Problem 4

1/1 point (graded)
What kind of relationship between words is captured by co-occurrence probabilities?

○ Words with similar frequencies are closely related

○ Words of similar length are closely related

(●) Words which are preceded or succeeded by similar words are closely related

(○) Words with similar spelling are closely related

✔

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Problem 5

1/1 point (graded)
In a feedforward neural net, nodes which aren't input nodes or output nodes are called what?

(●) Hidden units

(○) Middle units

(○) Floating nodes

(○) Intermediary nodes

✔

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Problem 6

1/1 point (graded)
True or false: Each layer of the feedforward neural net must be calculated sequentially as the values of any non-input row are calculated from the values of previous rows.

(●) True

○ False

✔

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Problem 7

1/1 point (graded)

You have a neural network with three fully connected layers, each containing 800 nodes. Approximately how many total edges does this graph have?

○ 800

○ 2400

● 1280000

○ 512000000

✔

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Problem 8

1/1 point (graded)

The loss function for the neural network can best be described as convex, concave, both, or neither?

○ convex

○ concave

○ both

◉ neither

✔

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Problem 9

1/1 point (graded)
Which of the following algorithms would be acceptable to use to optimize the loss function of a very large neural network?

☐ Gradient descent

☑ Stochastic gradient descent

☑ Mini-batch stochastic gradient descent

✔

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Problem 10

1/1 point (graded)
True or false: Dropout is used with neural networks to reduce the time and space complexity of the model.

○ True

◉ False

✔

Submit

✔

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