

Congratulations! You passed!

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 Grade received **100%** Latest Submission Grade 100% To pass 80% or higher

1. What is the difference between traditional programming and Machine Learning?

1 / 1 point

- ☐ Machine learning identifies complex activities such as golf, while traditional programming is better suited to simpler activities such as walking.
- ☒ In traditional programming, a programmer has to formulate or code rules manually, whereas, in Machine Learning, the algorithm automatically formulates the rules from the data.

 **Correct**

Exactly! Machine learning algorithms build a model based on sample data, known as "training data", in order to make predictions or decisions without being explicitly programmed to do so.

2. What do we call the process of telling the computer what the data represents (i.e. this data is for walking, this data is for running)?

1 / 1 point

- ☒ Labelling the Data
- ☐ Programming the Data
- ☐ Learning the Data
- ☐ Categorizing the Data

 **Correct**

Yes! Labeling typically takes a set of unlabeled data and augments each piece of it with informative tags.

3. What is a Dense layer?

1 / 1 point

- ☒ A layer of neurons fully connected to its adjacent layers
- ☐ A single neuron
- ☐ A layer of disconnected neurons
- ☐ An amount of mass occupying a volume

 **Correct**

Correct! In Keras, dense is used to define this layer of connected neurons

4. How do you measure how good the current 'guess' is?

1 / 1 point

- ☒ Using the Loss function
- ☐ Training a neural network
- ☐ Figuring out if you win or lose

 **Correct**

Absolutely! An optimization problem seeks to minimize a loss function.

5. What does the optimizer do?

1 / 1 point

- ☐ Figures out how to efficiently compile your code
- ☒ Generates a new and improved guess
- ☐ Measures how good the current guess is
- ☐ Decides to stop training a neural network

✓ Correct

Nailed it! The optimizer figures out the next guess based on the loss function.

6. What is Convergence?

1 / 1 point

- ☐ A programming API for AI
- ☒ The process of getting very close to the correct answer
- ☐ A dramatic increase in loss
- ☐ An analysis that corresponds too closely or exactly to a particular set of data.

✓ Correct

That's right! Convergence is when guesses get better and better closing to a 100% accuracy.

7. What does model.fit do?

1 / 1 point

- ☒ It trains the neural network to fit one set of values to another
- ☐ It determines if your activity is good for your body
- ☐ It makes a model fit available memory
- ☐ It optimizes an existing model

✓ Correct

Correct! The training takes place on the fit command.