

**Congratulations! You passed!**
TO PASS 70% or higher

Keep Learning


GRADE
100%

Phase 1. Project 1

LATEST SUBMISSION GRADE
100%


1. How are images commonly represented when given to a deep learning model?

1 / 1 point
- ☒ As layers of number grids, where each number is pixel intensity
- ☐ As a sequence of 1-dimensional vectors, where each number is pixel intensity
- ☐ As a 1-dimensional vector, where each number is a hand-picked feature
- ☐ As a 1-dimensional vector, where each number is pixel intensity

 **Correct**

Number grids retain the spatial information in the image, making it possible to leverage that information during training.


- ☒ Convolutional Neural Network (CNN)
- ☐ Multi-layer Perceptron (MLP)
- ☐ Recurrent Neural Network (RNN)
- ☐ Generative Adversarial Network (GAN)

 **Correct**

CNNs use convolutional filters in order to scan images for relevant patterns, making them highly suitable for image processing.


3. What is the kind of question being answered via the COVID detector?


1 / 1 point
- ☐ Linear regression
- ☐ Sequence-to-sequence translation
- ☐ Multi-label classification


 **Correct**


Binary classification is for binary outcomes; in this case, the patient can either have COVID, or not.

4. You are interested in further leveraging hospital resources in order to boost the performance of your COVID detector. Which of the following actions would improve the likelihood of a high performing model? **Check all that apply.**

1 / 1 point
- ☒ Giving the machine learning team the text reports associated with each of the COVID chest x-ray examinations.
-  **Correct**

The machine learning team can write a set of simple programs to attempt to uncover more signal about the patient (i.e. comorbidities) that could be useful for supervising the model further.
- ☒ Giving the machine learning team a large dataset of chest x-rays, even if they do not originate from COVID-positive patients.
-  **Correct**

The machine learning team can use this dataset for weakly supervised learning, and may be able to transfer the knowledge gained from this dataset into the new task.
- ☒ Giving the machine learning team segmentation labels for a small subset of the COVID chest x-ray dataset.
-  **Correct**

The machine learning team can use these labels to train a fine-grained model that could be helpful for providing additional signal to the COVID detector model.
- ☒ Giving the machine learning team access to an existing COVID detector.
-  **Correct**