

Training The Model

At this point, we have training data and a fully configured neural network to train. All that is left is to pass the data to the model for the training process to commence, a process that is completed by iterating on the training data. Training begins by calling the `fit ()` method.

The arguments are the batch size as you are using “adam” (bath gradient descent and epochs: no: of times the model should get trained).

```
In [ ]: #Training the model
model.fit_generator(x_train, steps_per_epoch=14,
                    epochs=10, validation_data=x_test,
                    validation_steps=4)
```

- `steps_per_epoch`: It specifies the total number of steps taken from the generator as soon as one epoch is finished and the next epoch has started. We can calculate the value of `steps_per_epoch` as the total

number of samples in your training folder divided by the batch size.

- Epochs: an integer and number of epochs we want to train our model for.
- Validation_data can be either input and targets list generator inputs, targets, and sample_weights list which can be used to evaluate.

The loss and metrics for any model after any epoch has ended.

- Validation_steps:

Only if the validation_data is a generator then only this argument can be used. It specifies the total number of steps taken from the generator before it is stopped at every epoch and its value is calculated as the total number of validation data points in your dataset divided by the validation batch size.

Note: This step takes a few minutes based on the epochs (no: of time you would like to train the machine with the given data set) you give.

