UDACITY

‹ Return to "Deep Learning" in the classroom

DISCUSS ON STUDENT HUB

Dog Breed Classifier

REVIEW

HISTORY

Meets Specifications

Dear student,

Thanks for updating your project! It now meets all requirements to pass 👍

The project demonstrates a good overall understanding of the theory, and you're able to successfully implement CNNs and transfer learning.

I hope you enjoy the next part of your Nanodegree program 😃

Files Submitted

The submission includes all required files.

Step 1: Detect Humans

The submission returns the percentage of the first 100 images in the dog and human face datasets with a detected human face.

The submission opines whether Haar cascades for face detection are an appropriate technique for human detection.

Clearly stated opinion

Step 2: Detect Dogs

The submission returns the percentage of the first 100 images in the dog and human face datasets with a detected dog.

Step 3: Create a CNN to Classify Dog Breeds (from Scratch)

The submission specifies a CNN architecture.

As mentioned in the previous review, you may consider batch normalization.

The submission specifies the number of epochs used to train the algorithm.

The trained model attains at least 1% accuracy on the test set.

Step 5: Create a CNN to Classify Dog Breeds

The submission downloads the bottleneck features corresponding to one of the Keras pre-trained models (VGG-19, ResNet-50, Inception, or Xception).

The submission specifies a model architecture.

Great! I think the additional layers have helped the overfitting to a certain degree 👍

The submission details why the chosen architecture succeeded in the classification task and why earlier attempts were not as successful.

The submission compiles the architecture by specifying the loss function and optimizer.

The submission uses model checkpointing to train the model and saves the model weights with the best validation loss.

The submission loads the model weights that attained the least validation loss.

Accuracy on the test set is 60% or greater.

The submission includes a function that takes a file path to an image as input and returns the dog breed that is predicted by the CNN.

Step 6: Write Your Algorithm

The submission uses the CNN from Step 5 to detect dog breed. The submission has different output for each detected image type (dog, human, other) and provides either predicted actual (or resembling) dog breed.

Step 7: Test Your Algorithm

The submission tests at least 6 images, including at least two human and two dog images.

Nice work putting this all together in your final algorithm!

What sort of optimizations would you make to the code?

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RETURN TO PATH

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