

Language: Python

Libraries Used: cv2, matplotlib, numpy, os, sklearn, sys, tensorflow

Description: A convolutional neural network that classifies whether a picture is of a cat or a dog with approximately 85.52% accuracy

Model Summary:

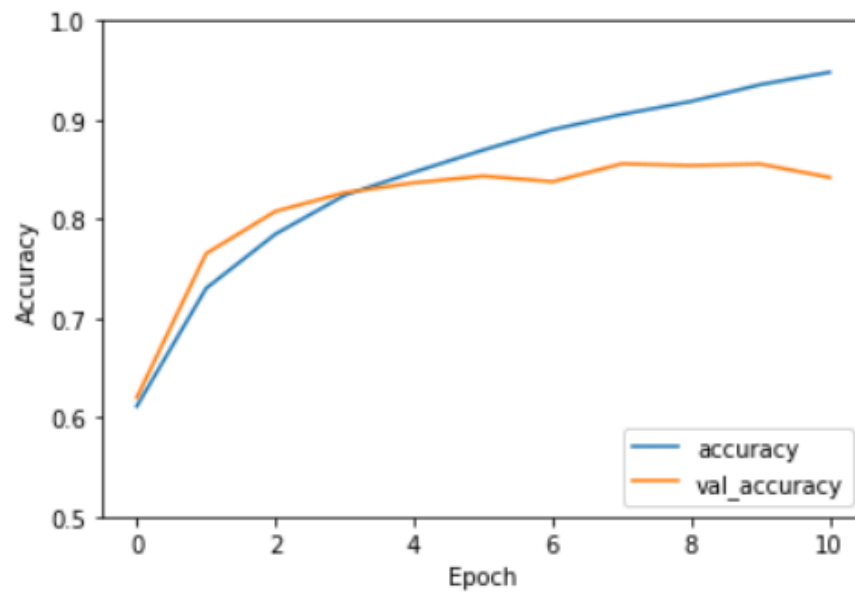
```
[ ] model.summary()
```

➡ Model: "sequential"

Layer (type)	Output Shape	Param #
conv2d (Conv2D)	(None, 108, 108, 32)	320
max_pooling2d (MaxPooling2D)	(None, 54, 54, 32)	0
conv2d_1 (Conv2D)	(None, 52, 52, 64)	18496
max_pooling2d_1 (MaxPooling2D)	(None, 26, 26, 64)	0
conv2d_2 (Conv2D)	(None, 24, 24, 64)	36928
max_pooling2d_2 (MaxPooling2D)	(None, 12, 12, 64)	0
conv2d_3 (Conv2D)	(None, 10, 10, 64)	36928
max_pooling2d_3 (MaxPooling2D)	(None, 5, 5, 64)	0
flatten (Flatten)	(None, 1600)	0
dense (Dense)	(None, 16)	25616
dense_1 (Dense)	(None, 16)	272
dense_2 (Dense)	(None, 1)	17
=====		
Total params: 118,577		
Trainable params: 118,577		
Non-trainable params: 0		

Training Progression:

235/235 - 2s - loss: 0.4354 - accuracy: 0.8552 - 2s/epoch - 7ms/step



Results:

```
results = model.evaluate(x_test, y_test, batch_size = 1)
```

7500/7500 [=====] - 23s 3ms/step - loss: 0.4354 - accuracy: 0.8552