

Select ml models x PLMLProject - Go x 4_Deployment.pdf x 5_Trabajo_individu x DenseNet x train.ipynb - Colab x train2.ipynb - Colab x

https://colab.research.google.com/drive/10hWIS1rATmDTbCnd820SxGGIqzG0lhr#scrollTo=bAwG-xYyJKVZ

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train2.ipynb

Archivo Editar Ver Insertar Entorno de ejecución Herramientas Ayuda Se guardaron todos los cambios

+ Código + Texto

RAM Disco Editando

```
[32] base_model = keras.applications.DenseNet121(
      include_top=True,
      weights='imagenet',
      input_tensor=None,
      input_shape=None,
      pooling=None,
      classes=1000,
    )
    base_model.trainable = False

    inputs = keras.Input(shape = (224, 224, 3))
    x = tf.keras.applications.densenet.preprocess_input(inputs)
    x = base_model(x, training=False)
    x = keras.layers.Dropout(0.2)(x)
    outputs = keras.layers.Dense(1)(x)
    model = keras.Model(inputs,outputs)

[51] model.compile(optimizer='adam', loss =
      tf.keras.losses.BinaryCrossentropy(from_logits = True),metrics =
      keras.metrics.BinaryAccuracy())
    model.fit(training_set, epochs = 20, validation_data = validation_set)

Epoch 1/20
27/27 [=====] - 50s 1s/step - loss: 0.6796 - binary_accuracy: 0.9437 - val_loss: 0.6685 - val_binary_accuracy: 0.9155
Epoch 2/20
27/27 [=====] - 50s 1s/step - loss: 0.6578 - binary_accuracy: 0.9437 - val_loss: 0.6479 - val_binary_accuracy: 0.9155
Epoch 3/20
27/27 [=====] - 50s 1s/step - loss: 0.6366 - binary_accuracy: 0.9437 - val_loss: 0.6282 - val_binary_accuracy: 0.9155
Epoch 4/20
27/27 [=====] - 50s 1s/step - loss: 0.6167 - binary_accuracy: 0.9437 - val_loss: 0.6094 - val_binary_accuracy: 0.9155
Epoch 5/20
27/27 [=====] - 50s 1s/step - loss: 0.5969 - binary_accuracy: 0.9437 - val_loss: 0.5915 - val_binary_accuracy: 0.9155
Epoch 6/20
27/27 [=====] - 50s 1s/step - loss: 0.5772 - binary_accuracy: 0.9437 - val_loss: 0.5741 - val_binary_accuracy: 0.9155
Epoch 7/20
27/27 [=====] - 50s 1s/step - loss: 0.5582 - binary_accuracy: 0.9437 - val_loss: 0.5576 - val_binary_accuracy: 0.9155
Epoch 8/20
27/27 [=====] - 50s 1s/step - loss: 0.5434 - binary_accuracy: 0.9437 - val_loss: 0.5419 - val_binary_accuracy: 0.9155
Epoch 9/20
27/27 [=====] - 50s 1s/step - loss: 0.5269 - binary_accuracy: 0.9437 - val_loss: 0.5267 - val_binary_accuracy: 0.9155
Epoch 10/20
27/27 [=====] - 50s 1s/step - loss: 0.5185 - binary_accuracy: 0.9437 - val_loss: 0.5122 - val_binary_accuracy: 0.9155
Epoch 11/20
27/27 [=====] - 50s 1s/step - loss: 0.4968 - binary_accuracy: 0.9437 - val_loss: 0.4984 - val_binary_accuracy: 0.9155
Epoch 12/20
27/27 [=====] - 50s 1s/step - loss: 0.4819 - binary_accuracy: 0.9437 - val_loss: 0.4852 - val_binary_accuracy: 0.9155
Epoch 13/20
27/27 [=====] - 50s 1s/step - loss: 0.4682 - binary_accuracy: 0.9437 - val_loss: 0.4726 - val_binary_accuracy: 0.9155
Epoch 14/20
27/27 [=====] - 50s 1s/step - loss: 0.4549 - binary_accuracy: 0.9437 - val_loss: 0.4605 - val_binary_accuracy: 0.9155
Epoch 15/20
27/27 [=====] - 50s 1s/step - loss: 0.4429 - binary_accuracy: 0.9437 - val_loss: 0.4490 - val_binary_accuracy: 0.9155
Epoch 16/20
27/27 [=====] - 50s 1s/step - loss: 0.4385 - binary_accuracy: 0.9437 - val_loss: 0.4379 - val_binary_accuracy: 0.9155
Epoch 17/20
27/27 [=====] - 50s 1s/step - loss: 0.4184 - binary_accuracy: 0.9437 - val_loss: 0.4274 - val_binary_accuracy: 0.9155
Epoch 18/20
27/27 [=====] - 50s 1s/step - loss: 0.4071 - binary_accuracy: 0.9437 - val_loss: 0.4173 - val_binary_accuracy: 0.9155
Epoch 19/20
27/27 [=====] - 50s 1s/step - loss: 0.3950 - binary_accuracy: 0.9437 - val_loss: 0.4076 - val_binary_accuracy: 0.9155
Epoch 20/20
27/27 [=====] - 50s 1s/step - loss: 0.3859 - binary_accuracy: 0.9437 - val_loss: 0.3984 - val_binary_accuracy: 0.9155
keras.callbacks.History at 0x7f521b98ef10>
```

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```
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27/27 [=====] - 5s 149ms/step - loss: 0.6578 - binary_accuracy: 0.9437 - val_loss: 0.6479 - val_binary_accuracy: 0.9155
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27/27 [=====] - 6s 214ms/step - loss: 0.6366 - binary_accuracy: 0.9437 - val_loss: 0.6282 - val_binary_accuracy: 0.9155
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Epoch 20/20
27/27 [=====] - 5s 152ms/step - loss: 0.3859 - binary_accuracy: 0.9437 - val_loss: 0.3984 - val_binary_accuracy: 0.9155
keras.callbacks.History at 0x7f521b98ef10>

json_config = model.to_json()
with open('model_config.json', 'w') as json_file:
    json_file.write(json_config)
model.save_weights('pets_nuevoModelo_transferlearning.h5')
```

