



# Tecnológico de Monterrey

**Instituto Tecnológico de Estudios Superiores de Monterrey**

**CAMPUS QUERÉTARO**

**Desarrollo de aplicaciones avanzadas de ciencias computacionales**

**TC3002B.201**

**Alumno(a):**

Ana Karen López Baltazar - A01707750

**Fecha:** 21/04/2024

## Artist Identification

### train\_model



```
# Mostrar el resumen del modelo
```

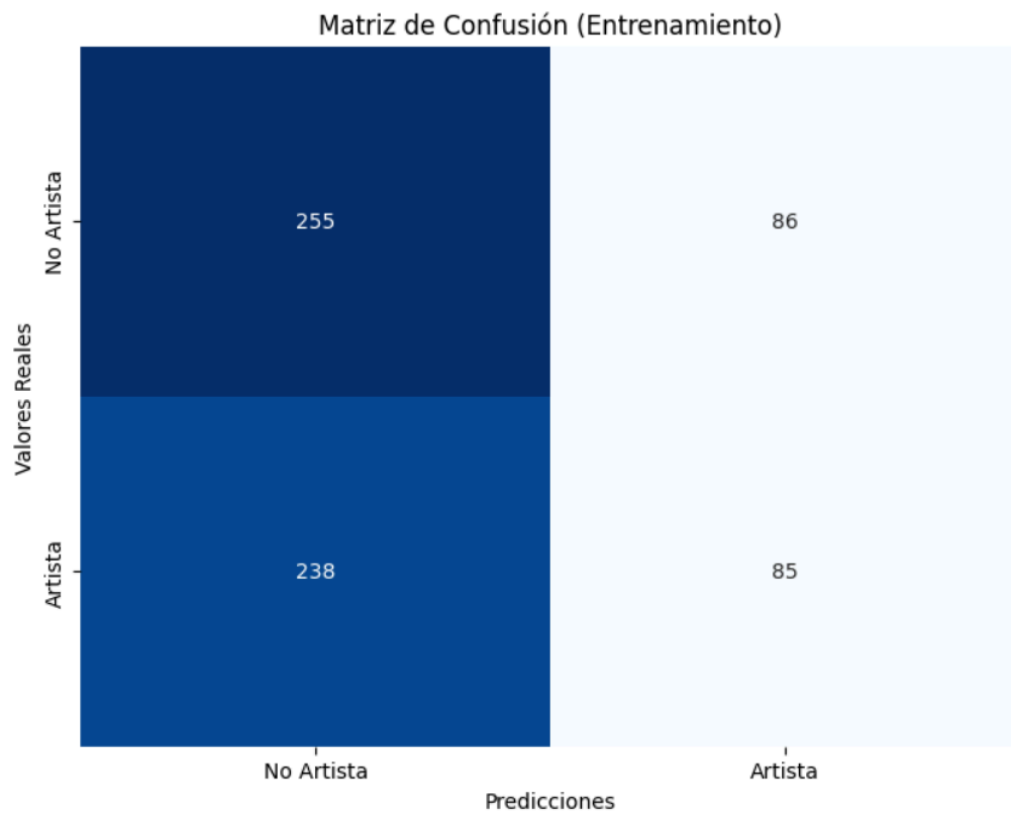
```
model.summary()
```

```
Downloading data from https://storage.googleapis.com/tensorflow/keras-applications/resnet/resnet50\_v2\_94765736/94765736 [=====] - 5s 0us/step  
Model: "sequential"
```

Layer (type)	Output Shape	Param #
resnet50 (Functional)	(None, None, None, 2048)	23587712
global_average_pooling2d (GlobalAveragePooling2D)	(None, 2048)	0
dense (Dense)	(None, 512)	1049088
dense_1 (Dense)	(None, 1)	513

```
=====  
Total params: 24637313 (93.98 MB)  
Trainable params: 1049601 (4.00 MB)  
Non-trainable params: 23587712 (89.98 MB)
```

```
Epoch 1/10  
21/21 [=====] - 445s 22s/step - loss: 0.8010 - acc: 0.5346 - val_loss: 0.6568 - val_acc: 0.6250  
Epoch 2/10  
21/21 [=====] - 18s 878ms/step - loss: 0.6315 - acc: 0.6596 - val_loss: 0.5847 - val_acc: 0.6739  
Epoch 3/10  
21/21 [=====] - 18s 865ms/step - loss: 0.6189 - acc: 0.6642 - val_loss: 0.6296 - val_acc: 0.6196  
Epoch 4/10  
21/21 [=====] - 19s 884ms/step - loss: 0.6625 - acc: 0.6084 - val_loss: 0.6040 - val_acc: 0.6630  
Epoch 5/10  
21/21 [=====] - 19s 872ms/step - loss: 0.5876 - acc: 0.7123 - val_loss: 0.5527 - val_acc: 0.7283  
Epoch 6/10  
21/21 [=====] - 18s 860ms/step - loss: 0.5715 - acc: 0.7244 - val_loss: 0.5738 - val_acc: 0.6957  
Epoch 7/10  
21/21 [=====] - 19s 911ms/step - loss: 0.5711 - acc: 0.7063 - val_loss: 0.5460 - val_acc: 0.7283  
Epoch 8/10  
21/21 [=====] - 18s 869ms/step - loss: 0.5601 - acc: 0.7184 - val_loss: 0.5414 - val_acc: 0.7120  
Epoch 9/10  
21/21 [=====] - 18s 866ms/step - loss: 0.5716 - acc: 0.7154 - val_loss: 0.5732 - val_acc: 0.7011  
Epoch 10/10  
21/21 [=====] - 20s 915ms/step - loss: 0.5568 - acc: 0.7259 - val_loss: 0.5513 - val_acc: 0.7120
```

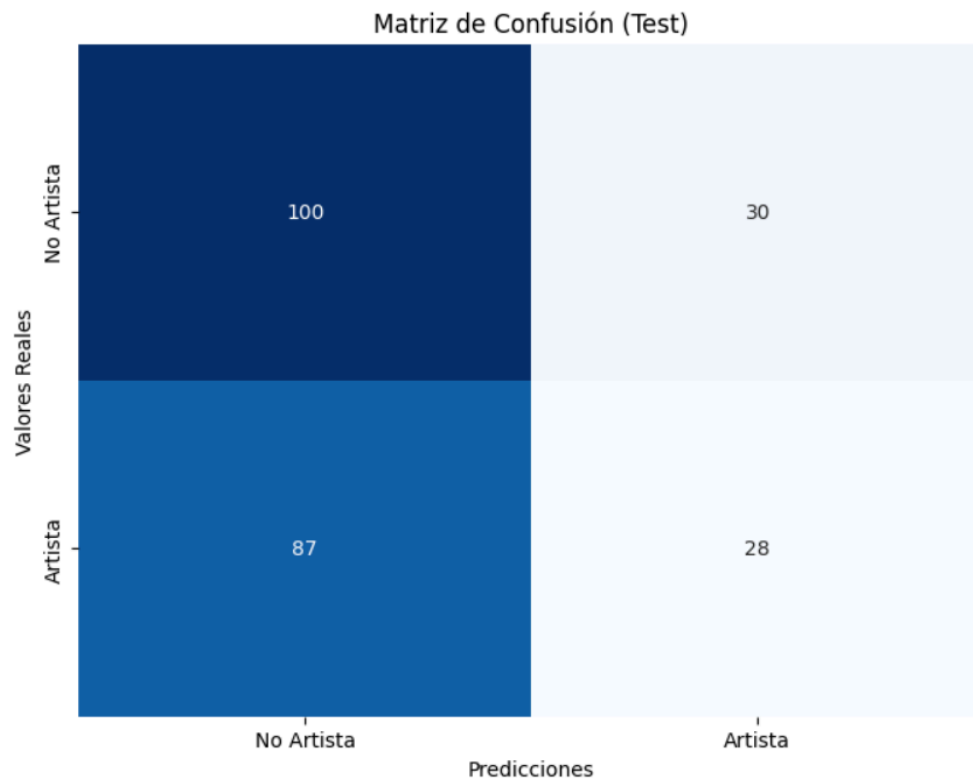


Reporte de clasificación (Entrenamiento):

	precision	recall	f1-score	support
avogado6	0.52	0.75	0.61	341
other_artists	0.50	0.26	0.34	323
accuracy			0.51	664
macro avg	0.51	0.51	0.48	664
weighted avg	0.51	0.51	0.48	664

## test\_model





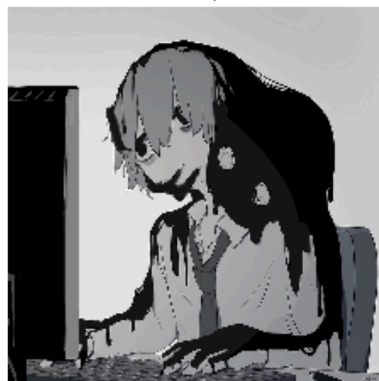
Reporte de clasificación (Test):

	precision	recall	f1-score	support
avogado6	0.53	0.77	0.63	130
other_artists	0.48	0.24	0.32	115
accuracy			0.52	245
macro avg	0.51	0.51	0.48	245
weighted avg	0.51	0.52	0.49	245

Predicción: 1.0, Real: 1.0



Predicción: 0.0, Real: 1.0



Predicción: 0.0, Real: 0.0

