# O Impacto do Dataset

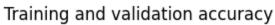
## **Teste**

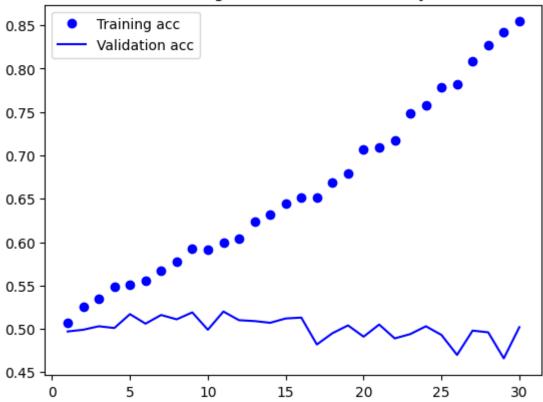
O Teste utilizado nesta comparação de datasets tem como objectivo classificar círculos e quadrados, ao seja, um problema de classificação binário.

# Modelo

```
x = layers.Rescaling(1./255)(inputs)
x = layers.Conv2D(filters=32, kernel\_size=3, activation="relu")(x)
x = layers.MaxPooling2D(pool\_size=2)(x)
x = layers.Conv2D(filters=64, kernel size=3, activation="relu")(x)
x = layers.MaxPooling2D(pool\_size=2)(x)
x = layers.Conv2D(filters=128, kernel_size=3, activation="relu")(x)
x = layers.MaxPooling2D(pool\_size=2)(x)
x = layers.Conv2D(filters=128, kernel\_size=3, activation="relu")(x)
x = layers.MaxPooling2D(pool\_size=2)(x)
x = layers.Flatten()(x)
x = layers.Dense(512, activation="relu")(x)
outputs = layers.Dense(1, activation="sigmoid")(x)
model.compile(
loss='binary_crossentropy',
optimizer=tf.keras.optimizers.RMSprop(learning_rate=1e-4),
metrics=['accuracy'])
```

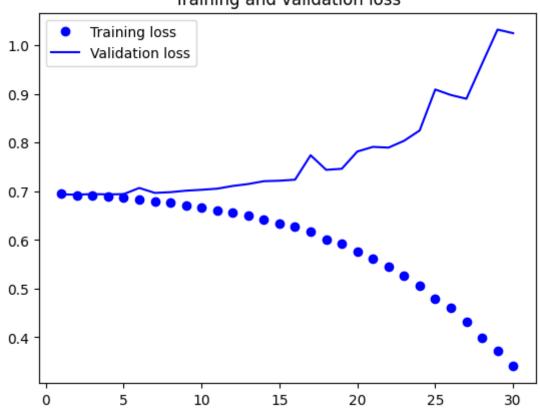
#### 1.000 Test 3.000 Train





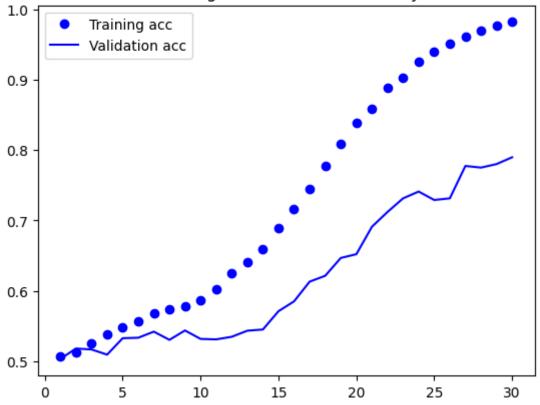
Validation Accuracy: 0.5020 Training Accuracy: 0.8543

Training and validation loss



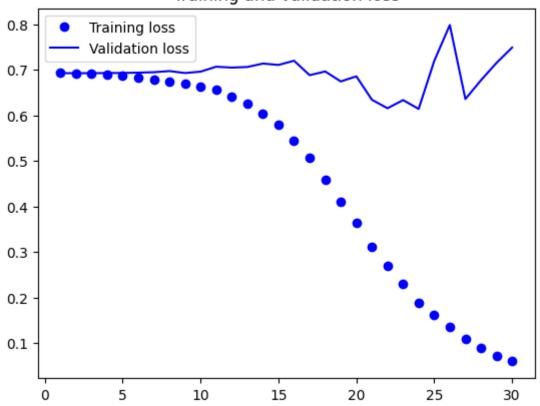
### 3.000 Test 7.000 Train



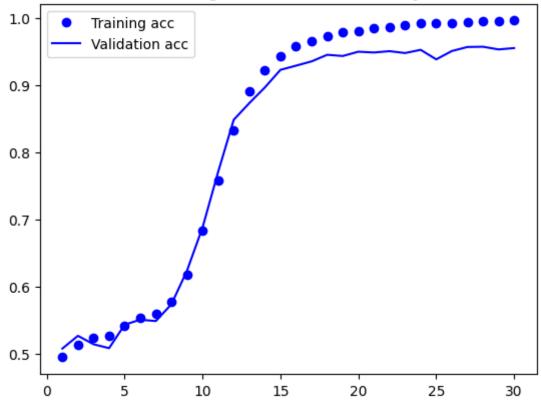


Validation Accuracy: 0.7897 Training Accuracy: 0.9817

Training and validation loss







Validation Accuracy: 0.9556 Training Accuracy: 0.9965



