

# Coding Python

RUN

MENU

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```
1 import tensorflow as tf
2 from tensorflow.keras.preprocessing.image import ImageDataGenerator
3 from tensorflow.keras.applications import MobileNetV2
4 from tensorflow.keras import layers, models
5 import os
6
7 # Dataset path
8 data_dir = 'poultry_diseases_dataset'
9
10 # Image parameters
11 img_size = 224
12 batch_size = 16
13
14 # Data preprocessing
15 datagen = ImageDataGenerator(validation_split=0.2, rescale=1./255)
16
17 train_data = datagen.flow_from_directory(
18     data_dir,
19     target_size=(img_size, img_size),
20     batch_size=batch_size,
21     class_mode='categorical',
22     subset='training'
23 )
24
25 val_data = datagen.flow_from_directory(
26     data_dir,
27     target_size=(img_size, img_size),
28     batch_size=batch_size,
29     class_mode='categorical',
30     subset='validation'
31 )
32
33 # Load MobileNetV2 without top
34 base_model = MobileNetV2(input_shape=(img_size, img_size, 3), include_top=False,
35     weights='imagenet')
36 base_model.trainable = False # Freeze base model
37
38 # Build model
39 model = models.Sequential([
40     base_model,
41     layers.GlobalAveragePooling2D(),
42     layers.Dense(128, activation='relu'),
43     layers.Dropout(0.3),
44     layers.Dense(train_data.num_classes, activation='softmax')
45 ])
46
47 # Compile
48 model.compile(optimizer='adam', loss='categorical_crossentropy', metrics=
49     ['accuracy'])
50
51 # Train
52 model.fit(train_data, validation_data=val_data, epochs=5)
53
54 # Save model
55 model.save("poultry_disease_classifier.h5")
```

## Compile Result

```
Traceback (most recent call last):  
  File "/data/user/0/com.kvassyu.coding.py/files/default.py", line 1, in <module>  
    import tensorflow as tf  
ModuleNotFoundError: No module named 'tensorflow'
```

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