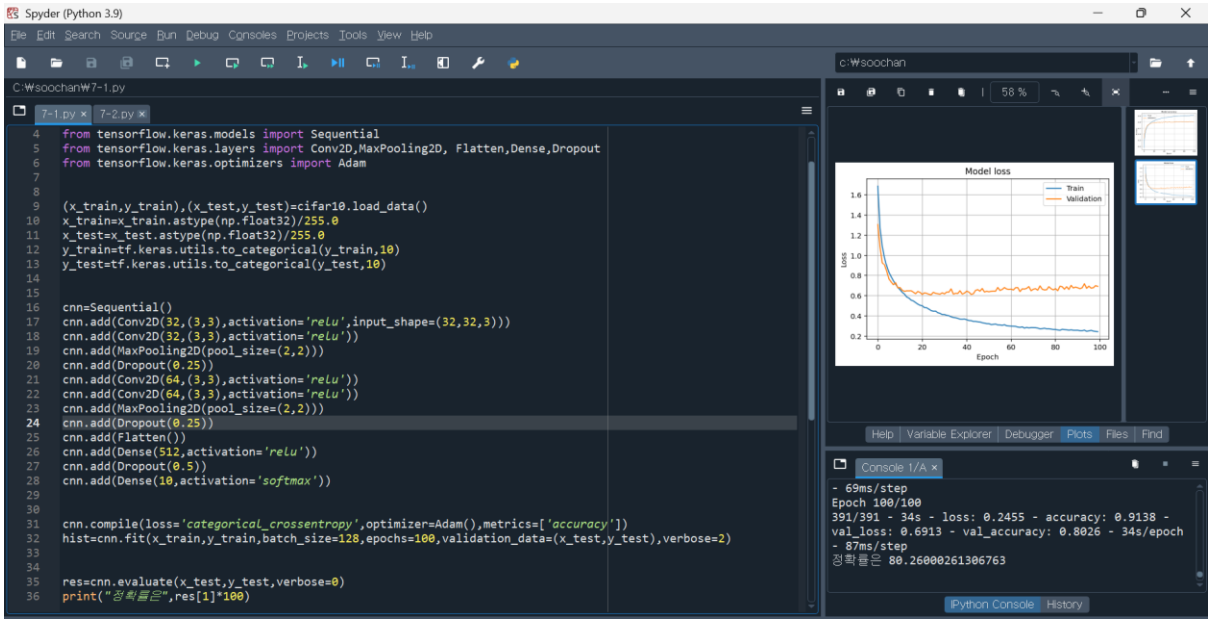
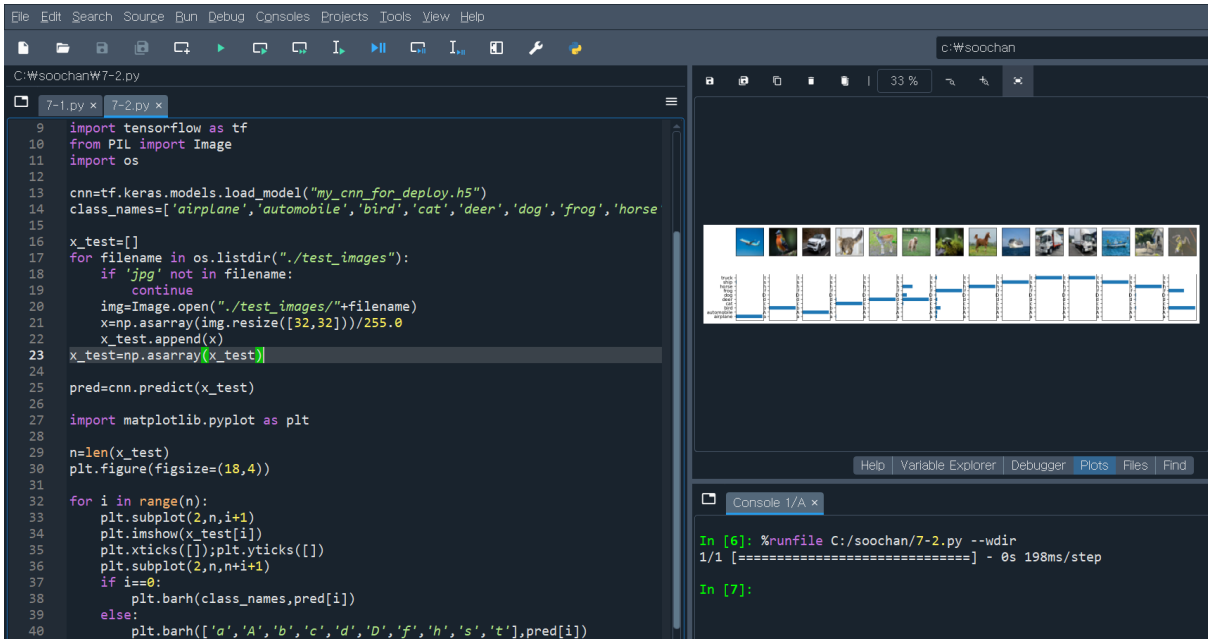
2100998이수찬 인공지능

7-1

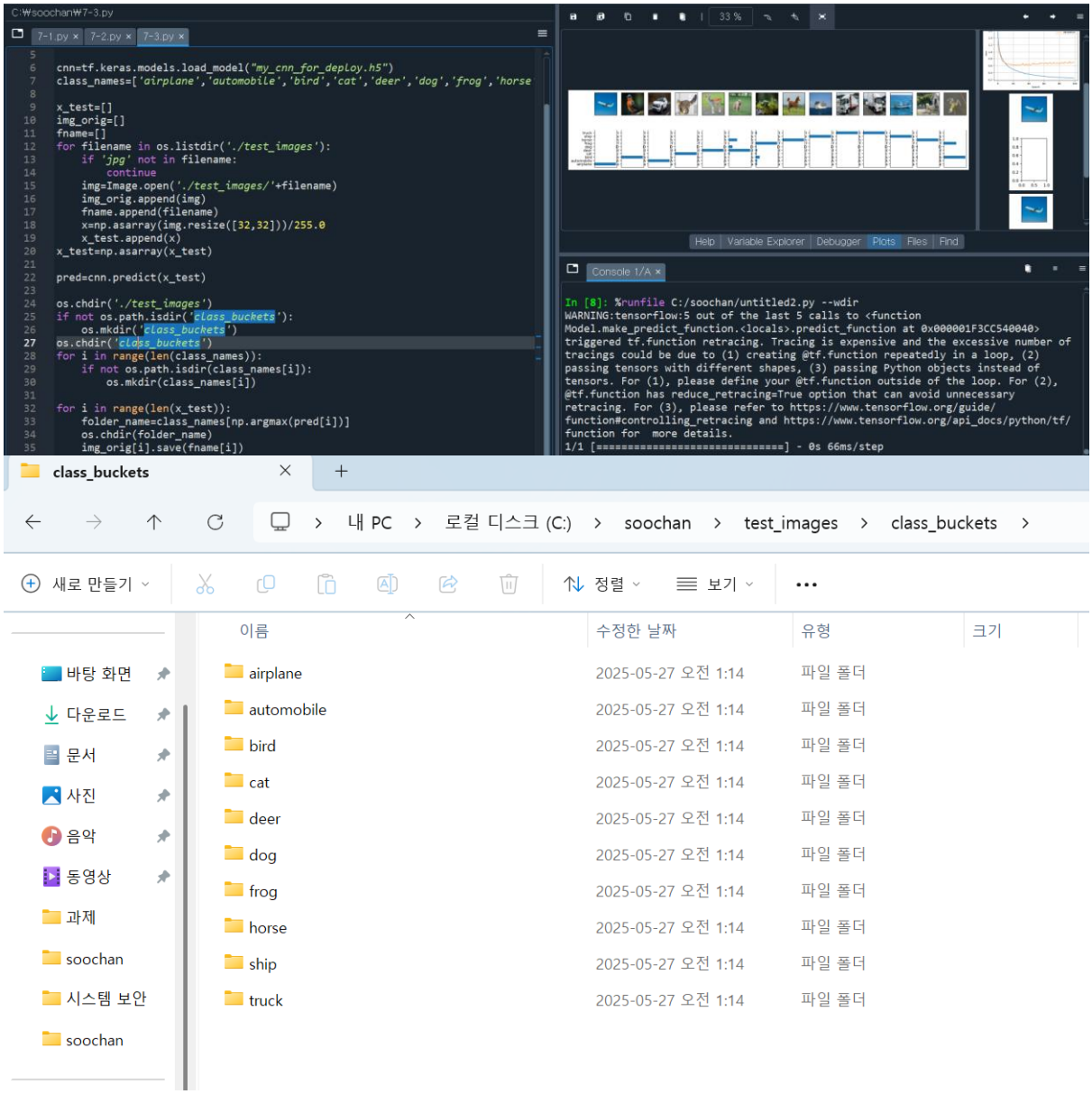


test_images	2025-05-22 오전 10:12	파일 폴더	
7-1.py	2025-05-27 오전 12:03	Python File	2KB
7-2.py	2025-05-22 오전 10:08	Python File	1KB
my_cnn_for_deploy.h5	2025-05-27 오전 12:58	H5 파일	10,496KB

7-2.


File Edit Search Source Run Debug Consoles Projects Tools View Help
C:₩soochan
C:₩soochan₩7-2.py
7-1.py × 7-2.py ×
import tensorflow as tf
from PIL import Image
import os
cnn=tf.keras.models.load_model("my_cnn_for_deploy.h5")
class_names=['airplane','automobile','bird','cat','deer','dog','frog','horse
x_test=[]
for filename in os.listdir("./test_images"):
if 'jpg' not in filename:
continue
img=Image.open("./test_images/"+filename)
x=np.asarray(img.resize([32,32]))/255.0
x_test.append(x)
x_test=np.asarray(x_test)
pred=cnn.predict(x_test)
import matplotlib.pyplot as plt
n=len(x_test)
plt.figure(figsize=(18,4))
for i in range(n):
plt.subplot(2,n,i+1)
plt.imshow(x_test[i])
plt.xticks([]);plt.yticks([])
plt.subplot(2,n,n+i+1)
if i==0:
plt.barh(class_names,pred[i])
else:
plt.barh(['a','A','b','c','d','D','f','h','s','t'],pred[i])
33 %
Help Variable Explorer Debugger Plots Files Find
Console 1/A ×
In [6]: %runfile C:/soochan/7-2.py --wdir
1/1 [==============================] - 0s 198ms/step
In [7]:

7-3


C:₩soochan₩7-3.py
7-1.py
7-2.py
7-3.py
cnn=tf.keras.models.load_model("my_cnn_for_deploy.h5")
class_names=['airplane','automobile','bird','cat','deer','dog','frog','horse
x_test=[]
img_orig=[]
fname=[]
for filename in os.listdir('./test_images'):
if 'jpg' not in filename:
continue
img=Image.open('./test_images/'+filename)
img_orig.append(img)
fname.append(filename)
x=np.asarray(img.resize([32,32]))/255.0
x_test.append(x)
x_test=np.asarray(x_test)
pred=cnn.predict(x_test)
os.chdir('./test_images')
if not os.path.isdir('class_buckets'):
os.mkdir('class_buckets')
os.chdir('class_buckets')
for i in range(len(class_names)):
if not os.path.isdir(class_names[i]):
os.mkdir(class_names[i])
for i in range(len(x_test)):
folder_name=class_names[np.argmax(pred[i])]
os.chdir(folder_name)
img_orig[i].save(fname[i])
Help
Variable Explorer
Debugger
Plots
Files
Find
Console 1/A
In [8]: %runfile C:/soochan/untitled2.py --wdir
WARNING:tensorflow:5 out of the last 5 calls to <function
Model.make_predict_function.<locals>.predict_function at 0x000001F3CC540040>
triggered tf.function retracing. Tracing is expensive and the excessive number of
tracings could be due to (1) creating @tf.function repeatedly in a loop, (2)
passing tensors with different shapes, (3) passing Python objects instead of
tensors. For (1), please define your @tf.function outside of the loop. For (2),
@tf.function has reduce_retracing=True option that can avoid unnecessary
retracing. For (3), please refer to https://www.tensorflow.org/guide/
function#controlling_retracing and https://www.tensorflow.org/api_docs/python/tf/
function for more details.
1/1 [==============================] - 0s 66ms/step
class_buckets
내 PC
로컬 디스크 (C:)
soochan
test_images
class_buckets
새로 만들기
정렬
보기
바탕 화면
다운로드
문서
사진
음악
동영상
과제
soochan
시스템 보안
soochan
이름
수정한 날짜
유형
크기
airplane 2025-05-27 오전 1:14 파일 폴더
automobile 2025-05-27 오전 1:14 파일 폴더
bird 2025-05-27 오전 1:14 파일 폴더
cat 2025-05-27 오전 1:14 파일 폴더
deer 2025-05-27 오전 1:14 파일 폴더
dog 2025-05-27 오전 1:14 파일 폴더
frog 2025-05-27 오전 1:14 파일 폴더
horse 2025-05-27 오전 1:14 파일 폴더
ship 2025-05-27 오전 1:14 파일 폴더
truck 2025-05-27 오전 1:14 파일 폴더