EXPERIMENT 5

Downloading data from $\underline{\text{https://www.cs.toronto.edu/~kriz/cifar-10-python.tar.gz}}$

170498071/170498071 -- 4s Ous/step

Training data shape: (50000, 32, 32, 3) Testing data shape: (10000, 32, 32, 3)











automobile









/tmp/ipython-input-3469876738.py:40: UserWarning: `input_shape` is undefined or non-square, or `rows` is not in [96, 128, 160, 192, 224]. Weights for input shape (2 base_model = MobileNetV2(weights='imagenet', include_top=False, input_shape=(32,32,3))

Downloading data from <a href="https://storage.googleapis.com/tensorflow/keras-applications/mobilenet v2/mobilenet v

9406464/9406464 -- 0s Ous/step

Model: "sequential"

Layer (type)	Output Shape	Param #
mobilenetv2_1.00_224 (Functional)	(None, 1, 1, 1280)	2,257,984
global_average_pooling2d (GlobalAveragePooling2D)	(None, 1280)	0
dropout (Dropout)	(None, 1280)	9

uropour (propour)	(NOINE, 1200)	·
dense (Dense)	(None, 128)	163,968
dense_1 (Dense)	(None, 10)	1,290

Total params: 2,423,242 (9.24 MB)
Trainable params: 165,258 (645.54 KB)
Non-trainable params: 2,257,984 (8.61 MB)
Epoch 1/5

— <mark>62s</mark> 79ms/step - accuracy: 0.1630 - loss: 2.2677 - val_accuracy: 0.2784 - val_loss: 2.1342 704/704 -Epoch 2/5 704/704 — - 47s 66ms/step - accuracy: 0.2390 - loss: 2.1287 - val_accuracy: 0.3034 - val_loss: 2.0272 Fnoch 3/5 704/704 — 46s 66ms/step - accuracy: 0.2618 - loss: 2.0603 - val_accuracy: 0.3146 - val_loss: 1.9768 Epoch 4/5 704/704 -- 45s 63ms/step - accuracy: 0.2666 - loss: 2.0268 - val_accuracy: 0.3150 - val_loss: 1.9488 Epoch 5/5 — 46s 65ms/step - accuracy: 0.2770 - loss: 2.0020 - val_accuracy: 0.3246 - val_loss: 1.9316 — 13s 38ms/step 704/704 -

Classification Report:

	precision	recall	f1-score	support
airplane	0.28	0.36	0.31	1000
automobile	0.31	0.27	0.29	1000
bird	0.31	0.13	0.18	1000
cat	0.34	0.22	0.27	1000
deer	0.37	0.40	0.38	1000
dog	0.23	0.20	0.21	1000
frog	0.39	0.38	0.39	1000
horse	0.32	0.27	0.29	1000
ship	0.30	0.38	0.33	1000
truck	0.27	0.48	0.35	1000
accuracy			0.31	10000
macro avg	0.31	0.31	0.30	10000
veighted avg	0.31	0.31	0.30	10000

		truck	0.2		0.48	0.35		1000						
	accuracy macro avg weighted avg		0.3 0.3		0.31 0.31	0. 0. 0.	30	10000 10000 10000						
		airplane -	357	68	58	26	68	68	47	59	173	76		
	aut	tomobile -	120		16	27	13	31	19	45	151			400
		bird -	156	50	129	79	150	104	118	47	90	77		
		cat -	86	54	44	219	69	159	106	65	62	136		300
	True	deer -	56	12	28	50	400	61	162	106	76	49		
		dog -	72	54	58	101	90	198	76	75	51	225	- 20	200
		frog -	115	43	28	47	138	94	382	38	33	82		
		horse -	82	36	47	40	121	83	48	269	121	153		100
		ship -	152	107	7	32	24	34	8	78	379	179		100
		truck -	71	172	3	31	9	18	13	52	147	484		
			airplane -	automobile -	- pird -	cat -	Pred	- bop	frog -	horse -	- dihs	truck -		