Project Development Phase

Model Performance Test

Date	20 November 2022
Team ID	PNT2022TMID21005
Project Name	INTELLIGENT VEHICLE DAMAGE ASSESSMENT AND COST ESTIMATOR FOR INSURANCE COMPANIES
Maximum Marks	4 Marks

Model Performance Testing

Project team shall fill the following information in the model performance testing template.

S.NO.	PARAMETER	VALUES	SCREENSHOT
1.	Model Summary		

5. Creating A Model Object

```
model = Model(inputs=vgg16.input, outputs=prediction)

model.summary()
```

```
Model: "model"

Layer (type)                    Output Shape               Param #
=================================================================
input_1 (InputLayer)            [(None, 224, 224, 3)]      0

block1_conv1 (Conv2D)           (None, 224, 224, 64)       1792

block1_conv2 (Conv2D)           (None, 224, 224, 64)       36928

block1_pool (MaxPooling2D)      (None, 112, 112, 64)       0

block2_conv1 (Conv2D)           (None, 112, 112, 128)      73856

block2_conv2 (Conv2D)           (None, 112, 112, 128)      147584

block2_pool (MaxPooling2D)      (None, 56, 56, 128)        0

block3_conv1 (Conv2D)           (None, 56, 56, 256)        295168

block3_conv2 (Conv2D)           (None, 56, 56, 256)        590080

block3_conv3 (Conv2D)           (None, 56, 56, 256)        590080

block3_pool (MaxPooling2D)      (None, 28, 28, 256)        0

block4_conv1 (Conv2D)           (None, 28, 28, 512)        1180160

block4_conv2 (Conv2D)           (None, 28, 28, 512)        2359808

block4_conv3 (Conv2D)           (None, 28, 28, 512)        2359808

block4_pool (MaxPooling2D)      (None, 14, 14, 512)        0

block5_conv1 (Conv2D)           (None, 14, 14, 512)        2359808

block5_conv2 (Conv2D)           (None, 14, 14, 512)        2359808

block5_conv3 (Conv2D)           (None, 14, 14, 512)        2359808

block5_pool (MaxPooling2D)      (None, 7, 7, 512)          0

flatten (Flatten)               (None, 25088)              0

dense (Dense)                   (None, 3)                  75267
=================================================================
Total params: 14,789,955
Trainable params: 75,267
```

| 2. | Accuracy | Training Accuracy - 97.51% Validation Accuracy - 70.42% |

```
training_set,
validation_data=test_set,
epochs=25,
steps_per_epoch=len(training_set),
validation_steps=len(test_set)
)
```

/usr/local/lib/python3.7/dist-packages/ipykernel_launcher.py:6: UserWarning: `Model.`

Epoch 1/25
98/98 [==============================] - 560s 6s/step - loss: 1.2275 - accuracy: 0.5
Epoch 2/25
98/98 [==============================] - 584s 6s/step - loss: 0.7810 - accuracy: 0.7
Epoch 3/25
98/98 [==============================] - 538s 5s/step - loss: 0.4842 - accuracy: 0.8
Epoch 4/25
98/98 [==============================] - 537s 5s/step - loss: 0.3813 - accuracy: 0.8
Epoch 5/25
98/98 [==============================] - 537s 5s/step - loss: 0.2735 - accuracy: 0.8
Epoch 6/25
98/98 [==============================] - 538s 5s/step - loss: 0.2211 - accuracy: 0.9
Epoch 7/25
98/98 [==============================] - 536s 5s/step - loss: 0.2163 - accuracy: 0.9
Epoch 8/25
98/98 [==============================] - 538s 6s/step - loss: 0.1728 - accuracy: 0.9
Epoch 9/25
98/98 [==============================] - 540s 6s/step - loss: 0.1423 - accuracy: 0.9
Epoch 10/25
98/98 [==============================] - 539s 6s/step - loss: 0.1118 - accuracy: 0.9
Epoch 11/25
98/98 [==============================] - 538s 5s/step - loss: 0.0808 - accuracy: 0.9
Epoch 12/25
98/98 [==============================] - 549s 6s/step - loss: 0.0751 - accuracy: 0.9
Epoch 13/25
98/98 [==============================] - 555s 6s/step - loss: 0.0730 - accuracy: 0.9
Epoch 14/25
98/98 [==============================] - 535s 5s/step - loss: 0.1074 - accuracy: 0.9
Epoch 15/25
98/98 [==============================] - 539s 6s/step - loss: 0.0598 - accuracy: 0.9
Epoch 16/25
98/98 [==============================] - 543s 6s/step - loss: 0.0810 - accuracy: 0.9
Epoch 17/25
98/98 [==============================] - 541s 6s/step - loss: 0.1196 - accuracy: 0.9
Epoch 18/25
98/98 [==============================] - 543s 6s/step - loss: 0.0915 - accuracy: 0.9
Epoch 19/25
98/98 [==============================] - 544s 6s/step - loss: 0.0687 - accuracy: 0.9
Epoch 20/25
98/98 [==============================] - 546s 6s/step - loss: 0.0492 - accuracy: 0.9
Epoch 21/25
98/98 [==============================] - 543s 6s/step - loss: 0.0674 - accuracy: 0.9
Epoch 22/25
98/98 [==============================] - 537s 5s/step - loss: 0.0740 - accuracy: 0.9
Epoch 23/25
98/98 [==============================] - 538s 6s/step - loss: 0.0822 - accuracy: 0.9
Epoch 24/25
98/98 [==============================] - 541s 6s/step - loss: 0.1048 - accuracy: 0.9
Epoch 25/25
98/98 [==============================] - 544s 6s/step - loss: 0.1373 - accuracy: 0.9 |