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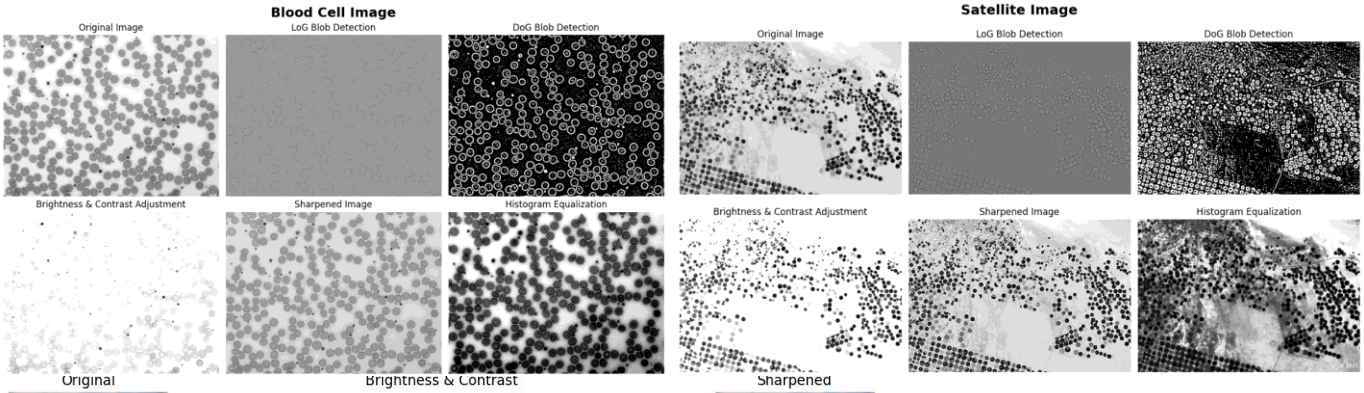
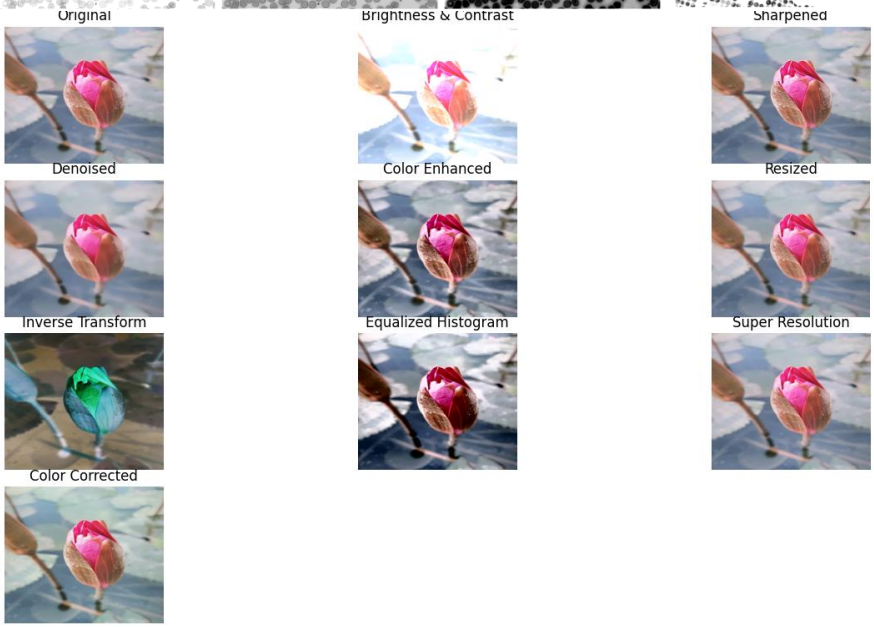
Chandni Gupta E22CSEU0955
B-32 LAB-7






```
2025-04-26 19:27:12.692170: I tensorflow/core/util/port.cc:113] oneDNN custom operations are on. You may see slightly different numerical
 results due to floating-point round-off errors from different computation orders. To turn them off, set the environment variable `TF_ENA
BLE_ONEDNN_OPTS=0`.
2025-04-26 19:27:14.589548: I tensorflow/core/util/port.cc:113] oneDNN custom operations are on. You may see slightly different numerical
 results due to floating-point round-off errors from different computation orders. To turn them off, set the environment variable `TF_ENA
BLE_ONEDNN_OPTS=0`.
2025-04-26 19:27:18.988451: I tensorflow/core/platform/cpu_feature_guard.cc:210] This TensorFlow binary is optimized to use available CPU
 instructions in performance-critical operations.
To enable the following instructions: AVX2 AVX_VNNI FMA, in other operations, rebuild TensorFlow with the appropriate compiler flags.
C:\Users\cchan\AppData\Roaming\Python\Python312\site-packages\keras\src\layers\convolutional\base_conv.py:99: UserWarning: Do not pass an
 `input_shape`/`input_dim` argument to a layer. When using Sequential models, prefer using an `Input(shape)` object as the first layer in
 the model instead.
  super().__init__(
Epoch 1/5
782/782 ━━━━━━━━━━━━━━━━━━━━ 896s 1s/step - accuracy: 0.0220 - loss: 4.4487 - val_accuracy: 0.0528 - val_loss: 4.1575
Epoch 2/5
782/782 ━━━━━━━━━━━━━━━━━━━━ 794s 1s/step - accuracy: 0.0671 - loss: 3.9193 - val_accuracy: 0.1159 - val_loss: 3.6688
Epoch 3/5
782/782 ━━━━━━━━━━━━━━━━━━━━ 837s 1s/step - accuracy: 0.1188 - loss: 3.5559 - val_accuracy: 0.1511 - val_loss: 3.3420
Epoch 4/5
782/782 ━━━━━━━━━━━━━━━━━━━━ 842s 1s/step - accuracy: 0.1641 - loss: 3.2619 - val_accuracy: 0.1936 - val_loss: 3.1801
Epoch 5/5
782/782 ━━━━━━━━━━━━━━━━━━━━ 843s 1s/step - accuracy: 0.2201 - loss: 2.9747 - val_accuracy: 0.2267 - val_loss: 3.0129
Epoch 1/5
782/782 ━━━━━━━━━━━━━━━━━━━━ 137s 172ms/step - accuracy: 0.0527 - loss: 4.2555 - val_accuracy: 0.2186 - val_loss: 3.3393
Epoch 2/5
782/782 ━━━━━━━━━━━━━━━━━━━━ 173s 221ms/step - accuracy: 0.1978 - loss: 3.3166 - val_accuracy: 0.2981 - val_loss: 2.8269
Epoch 3/5
782/782 ━━━━━━━━━━━━━━━━━━━━ 173s 221ms/step - accuracy: 0.2790 - loss: 2.8950 - val_accuracy: 0.3441 - val_loss: 2.6058
Epoch 4/5
782/782 ━━━━━━━━━━━━━━━━━━━━ 173s 221ms/step - accuracy: 0.3329 - loss: 2.6068 - val_accuracy: 0.3774 - val_loss: 2.4539
Epoch 5/5
782/782 ━━━━━━━━━━━━━━━━━━━━ 120s 153ms/step - accuracy: 0.3842 - loss: 2.3809 - val_accuracy: 0.4077 - val_loss: 2.3168
VGG16 - Loss: 3.0115, Accuracy: 0.2267
Light AlexNet - Loss: 2.3171, Accuracy: 0.4077
1/1 ━━━━━━━━━━━━━━━━━━━━ 0s 217ms/step
1/1 ━━━━━━━━━━━━━━━━━━━━ 0s 87ms/step
VGG16 Inference Time: 0.2642 seconds
Light AlexNet Inference Time: 0.1251 seconds
```