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Roll Number : R008 M. Tech. Artificial Intelligence

1st Network

Training Set:

Categorical data 2 sets
30 images in set1 (farzad) 29 images in set2 (himanshu)

Original Size of images (720, 1280, 3)

Test Set:

2 sets
30 images in set1 (farzad) 29 images in set2 (himanshu)

Original Size of images (720, 1280, 3)

Input Layer

1. Convolution layer 2D input layer
2. 32 filters
3. 3x3 kernel
4. Stride = 1
5. Input shape = (256, 256, 3)
6. activation function = Rectified Linear Unit (ReLU)

2d Layer

1. Convolution layer
2. 32 filters
3. 3x3 kernel
4. Stride = 3
5. activation function = Rectified Linear Unit (ReLU)

3rd Layer

1. Convolution layer
2. 64 filters
3. 3x3 kernel
4. Stride = 3
5. activation function = Rectified Linear Unit (ReLU)

4th Layer

1. Convolution layer
2. 128 filters
3. 3x3 kernel
4. Stride = 3
5. activation function = Rectified Linear Unit (ReLU)

4th Layer

1. Flattening

Fully connected Layer

1. Fully connected layer
2. 128 filters
3. activation function = Rectified Linear Unit (ReLU)

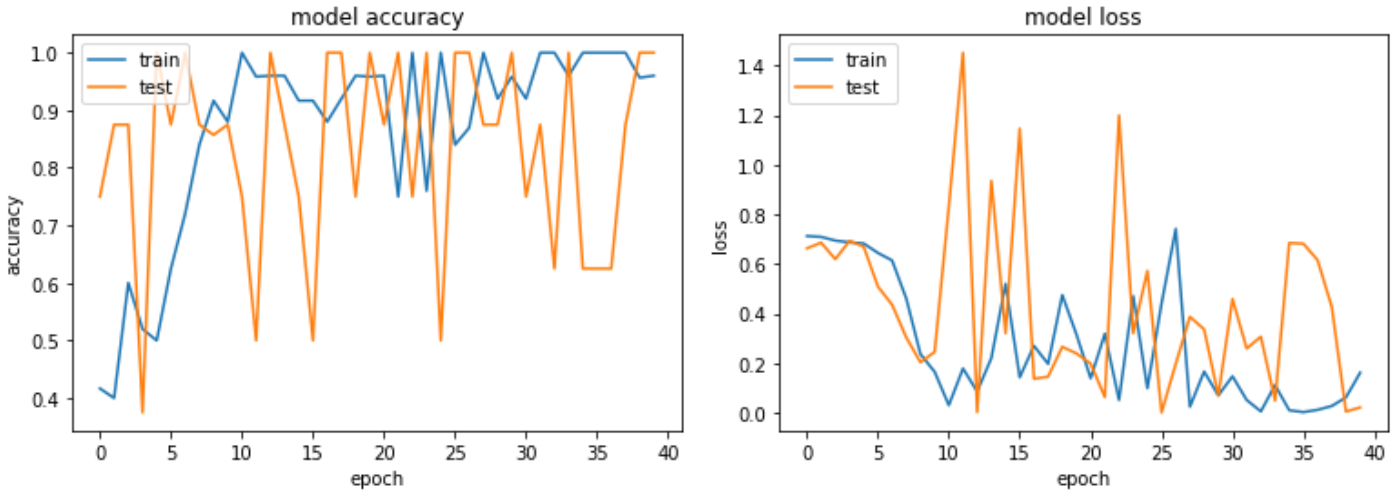
Output Layer

1. Fully connected Layer
2. 2 Outputs
3. activation function = Softmax function

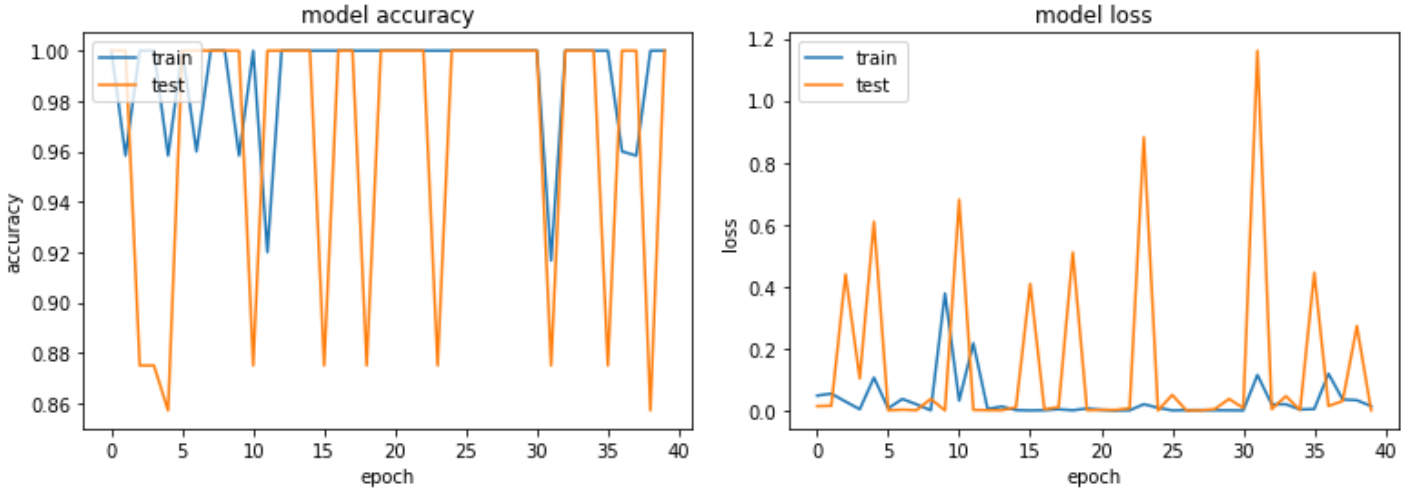
Classifier variables

1. optimizer = 'adam',
2. loss = binary crossentropy

Model Accuracy and Model Loss after 40 epochs



Model Accuracy and Model Loss after 80 epochs



2nd Network

Training Set:

Categorical data 3 sets
30 images in set1 (farzad) 29 images in set2 (himanshu) & set3 (meet)

Original Size of images (720, 1280, 3)

Test Set:

2 sets
30 images in set1 (farzad) 29 images in set2 (himanshu) & set3 (meet)

Original Size of images (720, 1280, 3)

Input Layer

1. Convolution layer 2D input layer
2. 128 filters
3. 3x3 kernel
4. Stride = 1
5. Input shape = (256, 256, 3)
6. activation function = Rectified Linear Unit (ReLU)

2d Layer

1. Convolution layer
2. 64 filters
3. 3x3 kernel
4. Stride = 3
5. activation function = Rectified Linear Unit (ReLU)

3rd Layer

1. Convolution layer
2. 128 filters
3. 3x3 kernel
4. Stride = 3
5. activation function = Rectified Linear Unit (ReLU)

4th Layer

1. Convolution layer
2. 256 filters
3. 3x3 kernel
4. Stride = 3
5. activation function = Rectified Linear Unit (ReLU)

4th Layer

1. Flattening

Fully connected Layer

1. Fully connected layer

2. 512 filters
3. activation function = Rectified Linear Unit (ReLU)

Output Layer

1. Fully connected Layer
2. 3 Outputs
3. activation function = Softmax function

Classifier variables

1. optimizer = 'adam',
2. loss = binary crossentropy

Total Parameters

1. optimizer = 'adam',

Model Accuracy and Model Loss after 40 epochs