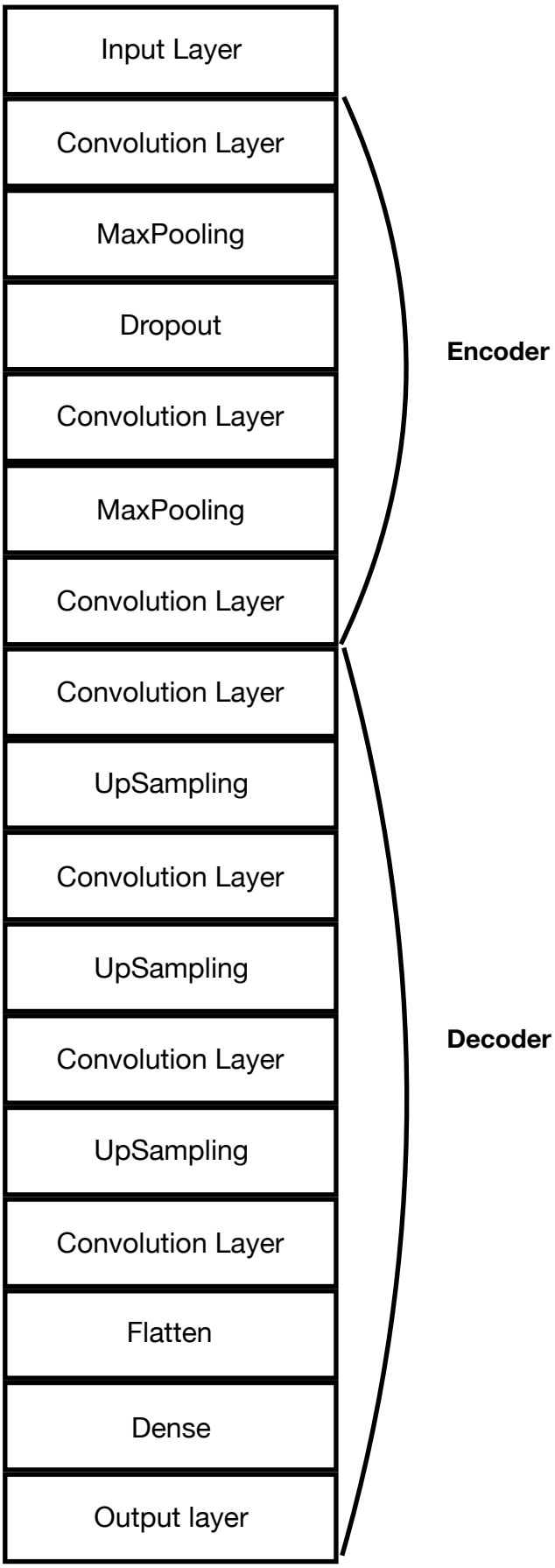
1. **Diagram of the Autoencoder architecture**



2. Model summary for the above architecture

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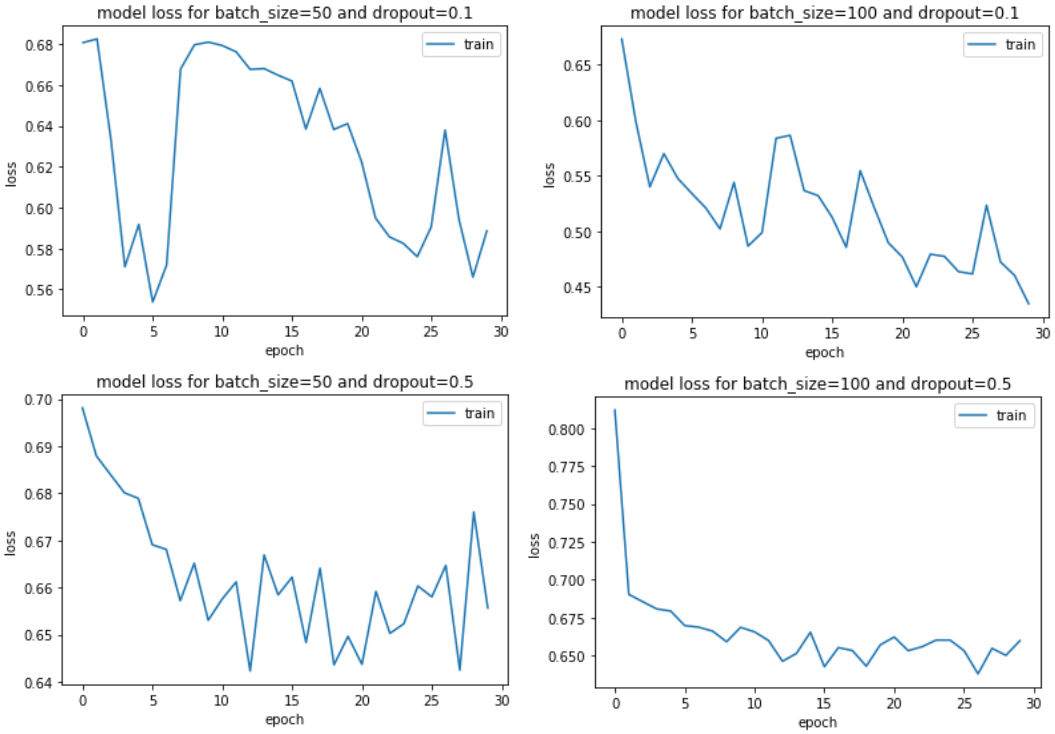
_________________
Layer (type)                 Output Shape              Param #
=================================================================
input_6 (InputLayer)         (None, 200, 200, 3)       0
_________________________________________________________________
conv2d_36 (Conv2D)           (None, 198, 198, 16)      448
_________________________________________________________________
max_pooling2d_11 (MaxPooling (None, 99, 99, 16)        0
_________________________________________________________________
dropout_6 (Dropout)          (None, 99, 99, 16)        0
_________________________________________________________________
conv2d_37 (Conv2D)           (None, 97, 97, 8)         1160
_________________________________________________________________
max_pooling2d_12 (MaxPooling (None, 49, 49, 8)         0
_________________________________________________________________
conv2d_38 (Conv2D)           (None, 47, 47, 8)         584
_________________________________________________________________
conv2d_39 (Conv2D)           (None, 45, 45, 8)         584
_________________________________________________________________
up_sampling2d_16 (UpSampling (None, 90, 90, 8)         0
_________________________________________________________________
conv2d_40 (Conv2D)           (None, 88, 88, 8)         584
_________________________________________________________________
up_sampling2d_17 (UpSampling (None, 176, 176, 8)       0
_________________________________________________________________
conv2d_41 (Conv2D)           (None, 174, 174, 16)      1168
_________________________________________________________________
up_sampling2d_18 (UpSampling (None, 348, 348, 16)      0
_________________________________________________________________
conv2d_42 (Conv2D)           (None, 346, 346, 1)       145
_________________________________________________________________
flatten_6 (Flatten)          (None, 119716)            0
_________________________________________________________________
dense_11 (Dense)             (None, 10)                1197170
_________________________________________________________________
dense_12 (Dense)             (None, 1)                 11
=================================================================
Total params: 1,201,854
Trainable params: 1,201,854
Non-trainable params: 0
_________________________________________________________________
```

3. Plots for different batch size and dropout

Parameters for the autoencoder model

- Two Categorise
- Batch size of 50 and 100
- Dropout of 0.1 and 0.5
- Maximum instance 6000
- Steps per epoch 10
- Epochs 30
- Prediction with size 50 and 100
- Prediction instances 100

Given below are the loss plot for different values of dropout and batch size



4. Result of the Correct predictions from the model

	Batch size 50	Batch size 100
Dropout 0.1	0.5	0.7
Dropout 0.5	0.46	0.53