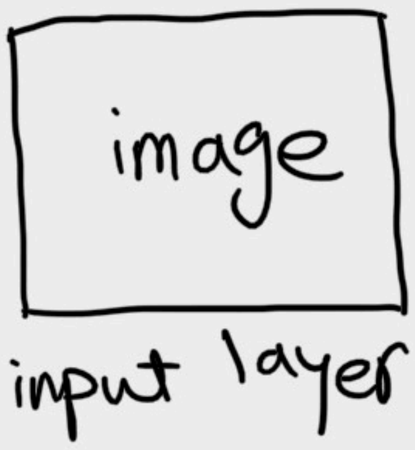
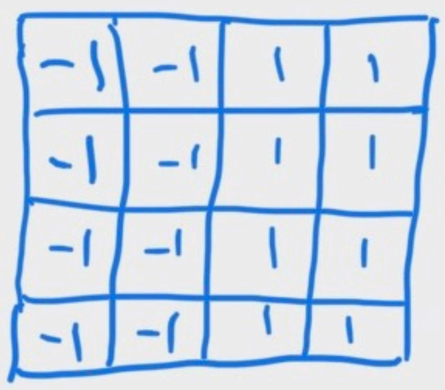
Inside Convolutional Layers

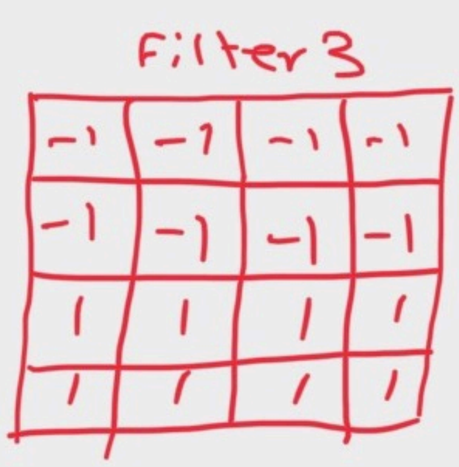
example

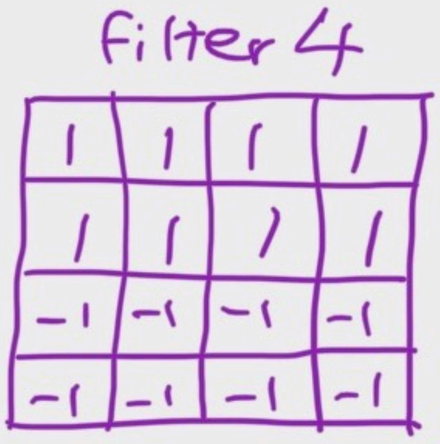


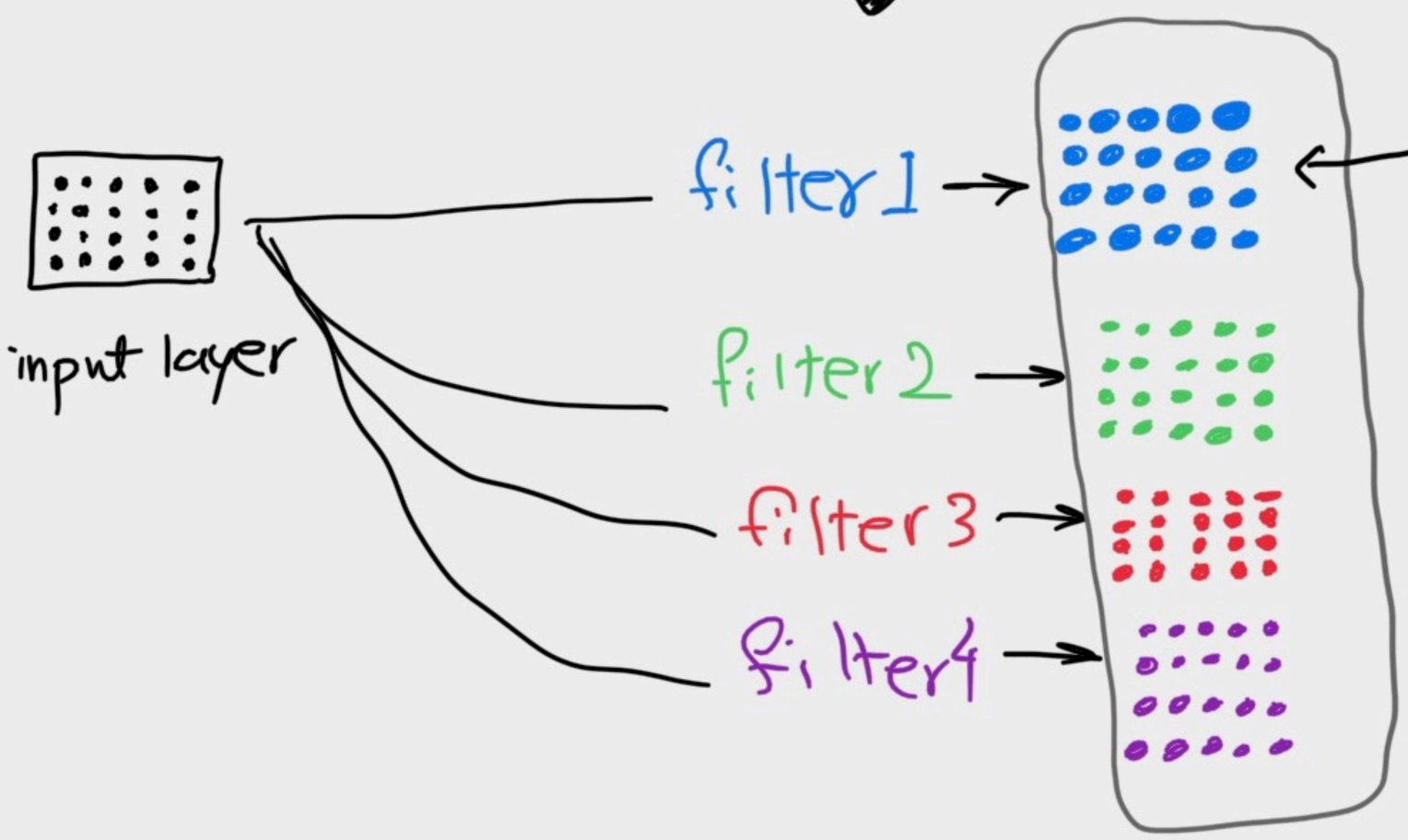


right edge

left edge







If we visualize each feature map, we see that each of them looks like the filtered image.

Color images:

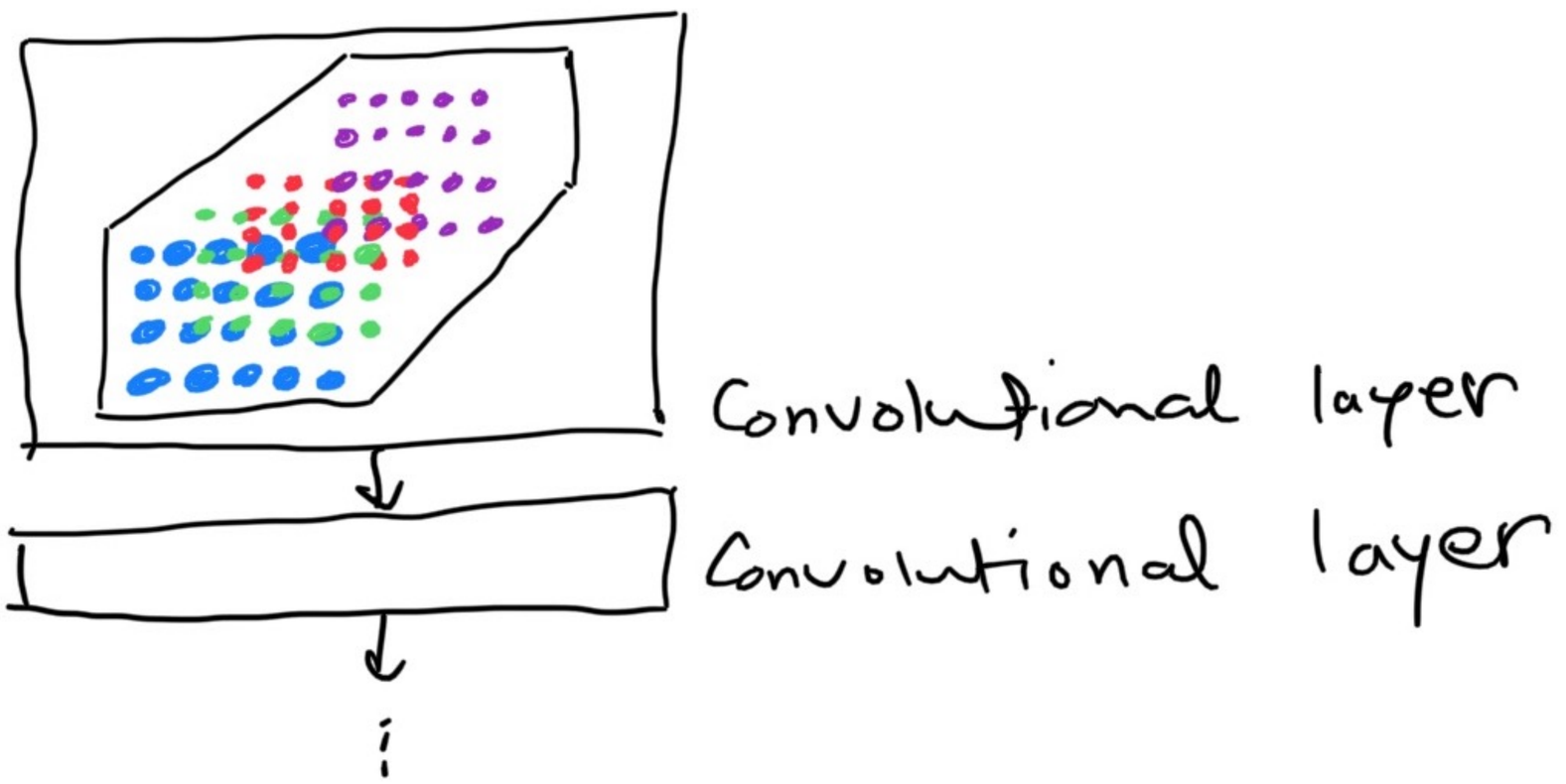
Just like GrayScale but 3D. Depth
width
Height

Depth → RGB Channel.

So, the filter has to be 3D, too.
I.e., three 2D filters.

Stacking filtered Images:

We can take the four filtered images above, stack them, and use them as input to anoth Convolutional layer.



Similar to dense layer, we have weights, biases, and loss functions.