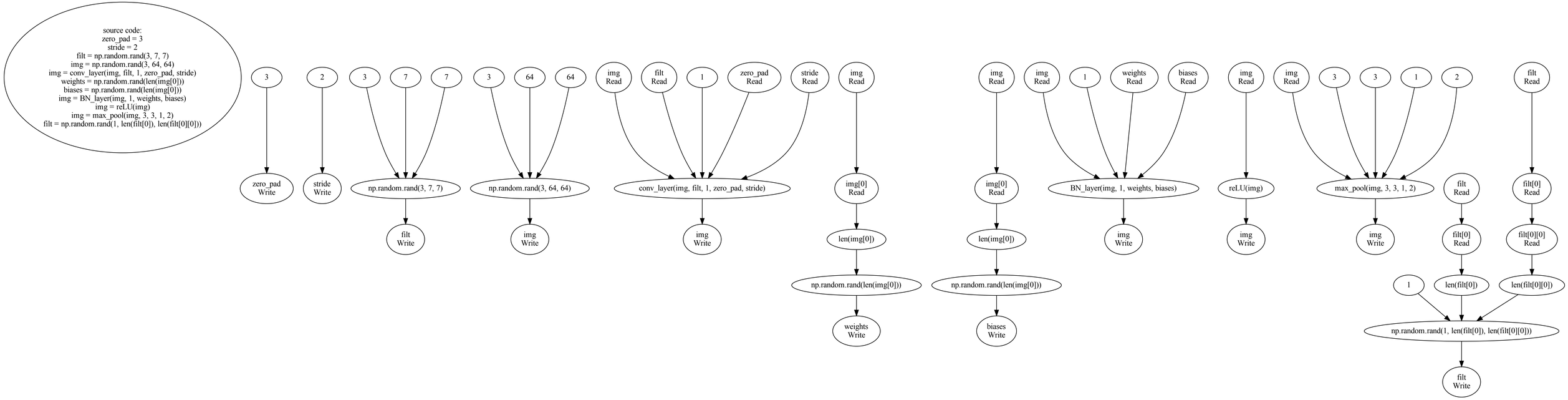
source code:
zero_pad = 3
stride = 2
filt = np.random.rand(3, 7, 7)
img = np.random.rand(3, 64, 64)
img = conv_layer(img, filt, 1, zero_pad, stride)
weights = np.random.rand(len(img[0]))
biases = np.random.rand(len(img[0]))
img = BN_layer(img, 1, weights, biases)
img = reLU(img)
img = max_pool(img, 3, 3, 1, 2)
filt = np.random.rand(1, len(filt[0]), len(filt[0][0]))
3
zero_pad Write
2
stride Write
3
7
7
np.random.rand(3, 7, 7)
filt Write
3
64
64
np.random.rand(3, 64, 64)
img Write
img Read
filt Read
1
zero_pad Read
stride Read
conv_layer(img, filt, 1, zero_pad, stride)
img Write
img Read
img[0] Read
len(img[0])
np.random.rand(len(img[0]))
weights Write
img Read
img[0] Read
len(img[0])
np.random.rand(len(img[0]))
biases Write
img Read
1
weights Read
biases Read
BN_layer(img, 1, weights, biases)
img Write
img Read
reLU(img)
img Write
img Read
3
3
1
2
max_pool(img, 3, 3, 1, 2)
img Write
filt Read
filt[0] Read
1
len(filt[0])
filt Read
filt[0] Read
filt[0][0] Read
len(filt[0][0])
np.random.rand(1, len(filt[0]), len(filt[0][0]))
filt Write