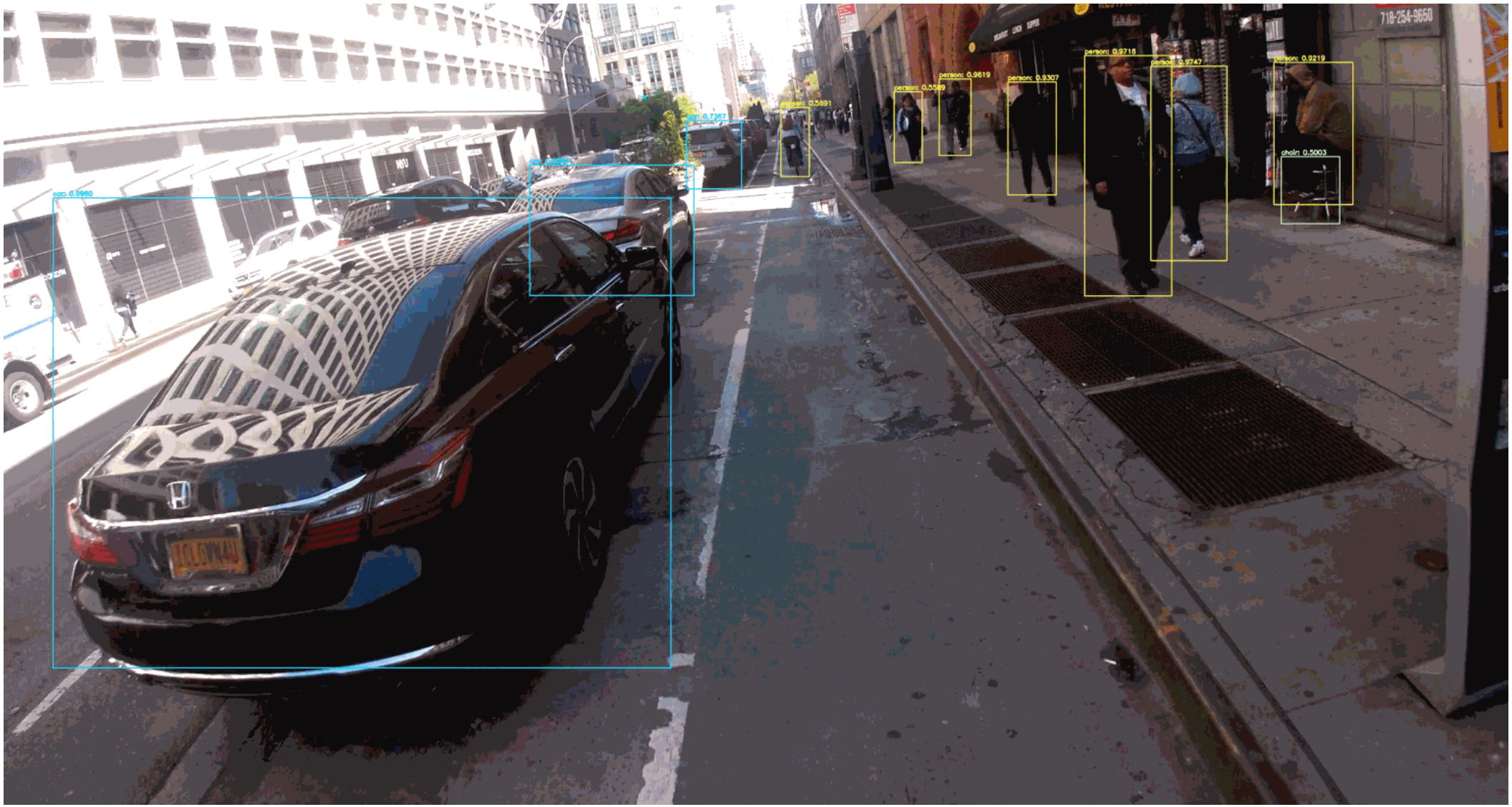
intro to image classification with convolutional neural networks

r-ladies nyc lightning talk

ursula kaczmarek, democracy.works


car: 0.1960
car: 0.7367
person: 0.5891
person: 0.5569
person: 0.9619
person: 0.9307
person: 0.9718
person: 0.9747
person: 0.9219
chair: 0.5003
718-254-9650

smoke: 57.0%
HPWREN

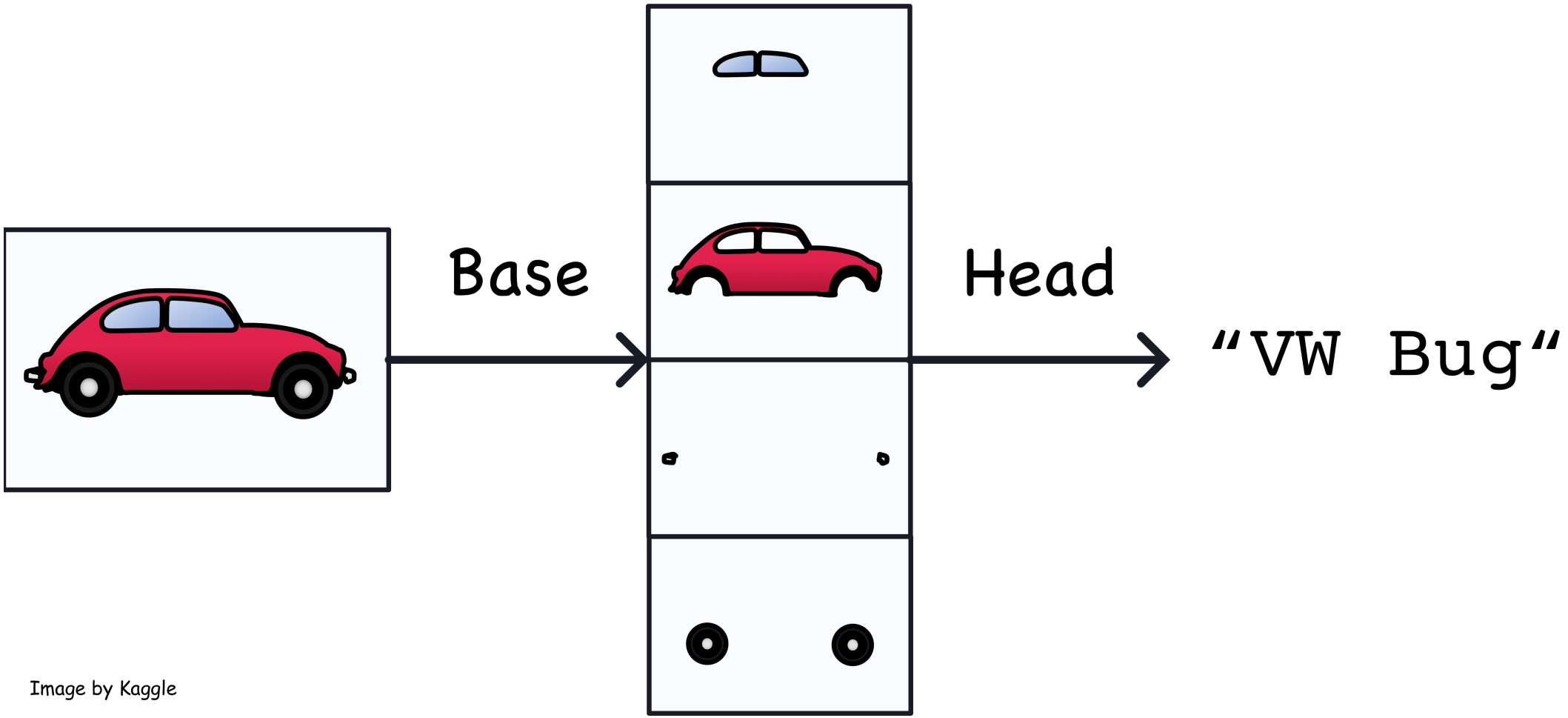
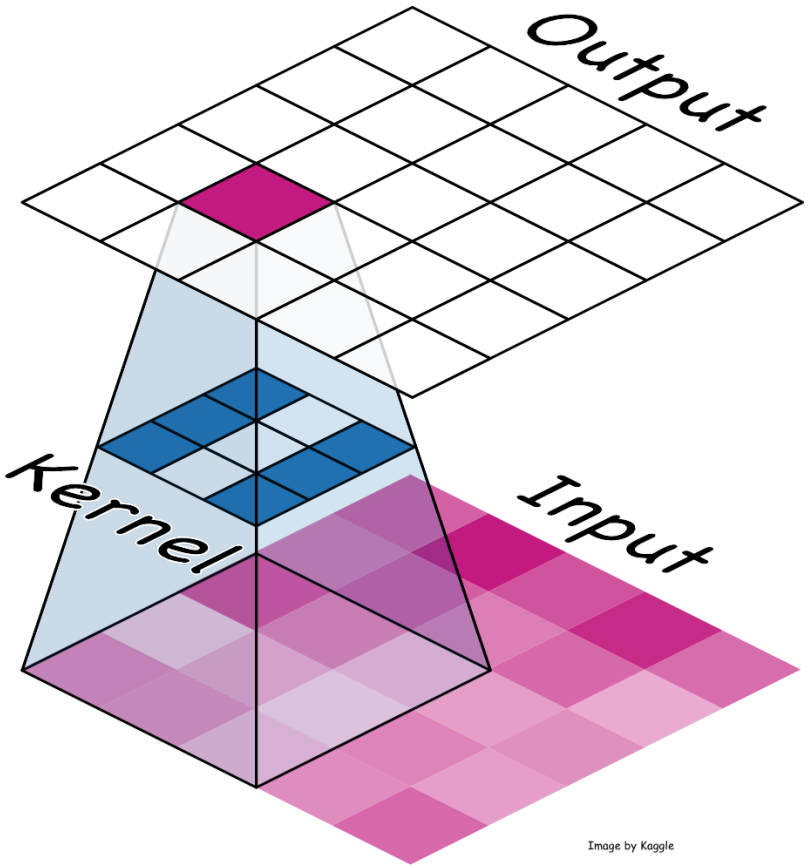
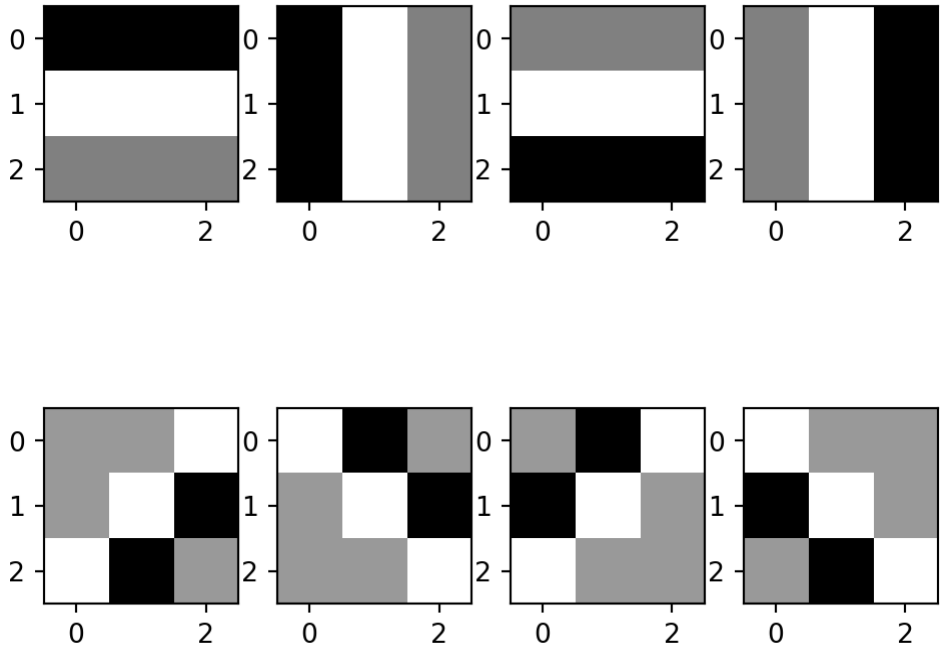
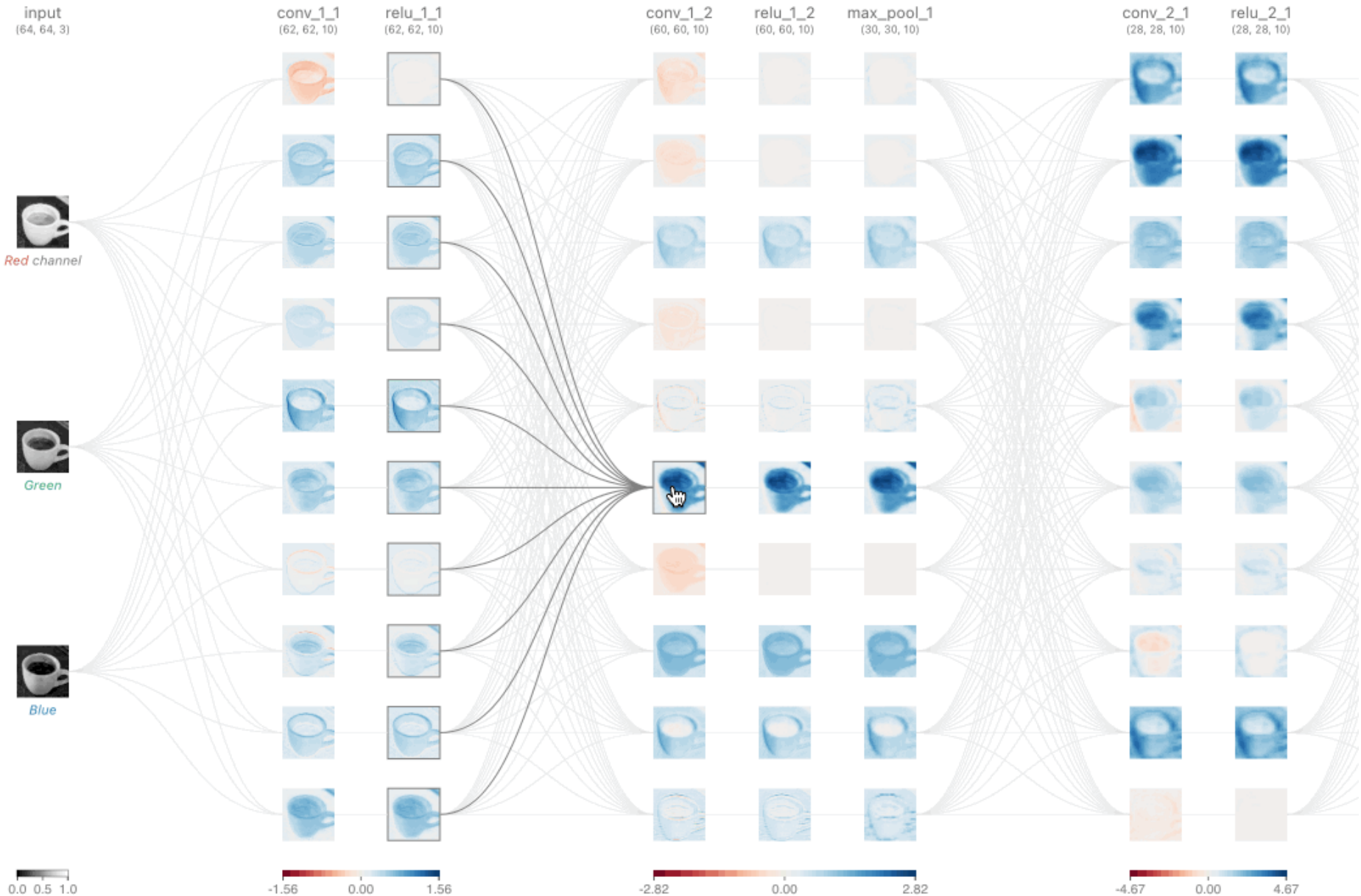


Image by Kaggle

Image by Kaggle


Output
Kernel
Input
Image by Kaggle


0
1
2
0
2


input
(64, 64, 3)
conv_1_1
(62, 62, 10)
relu_1_1
(62, 62, 10)
conv_1_2
(60, 60, 10)
relu_1_2
(60, 60, 10)
max_pool_1
(30, 30, 10)
conv_2_1
(28, 28, 10)
relu_2_1
(28, 28, 10)
Red channel
Green
Blue
0.0 0.5 1.0
-1.56 0.00 1.56
-2.82 0.00 2.82
-4.67 0.00 4.67

-1	-1
1	1

-1	-2	-1
0	0	0
1	2	1

-2	-1	0
-1	1	1
0	1	2

Image by Kaggle

Original

Pooled

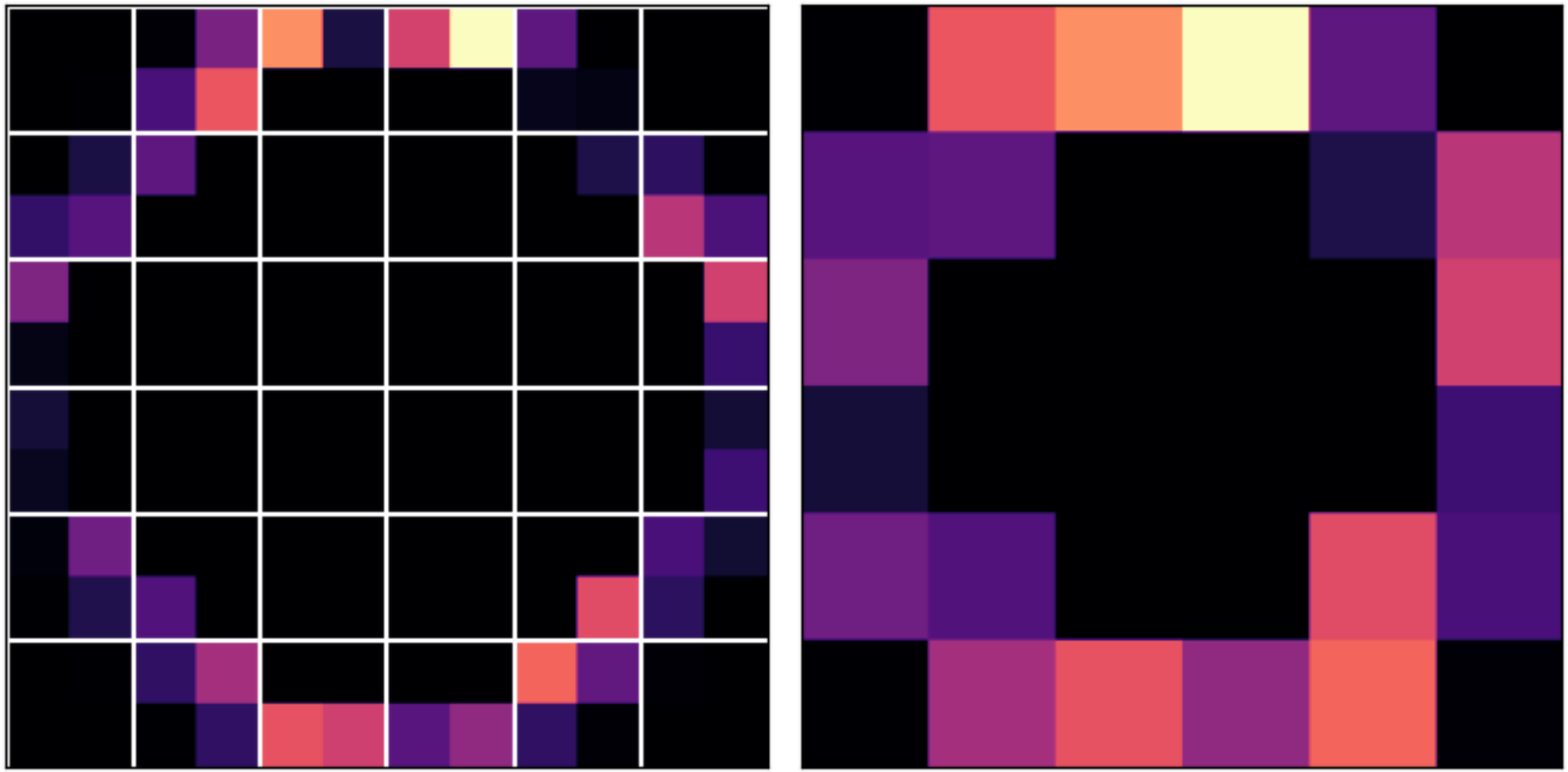


Image by Kaggle