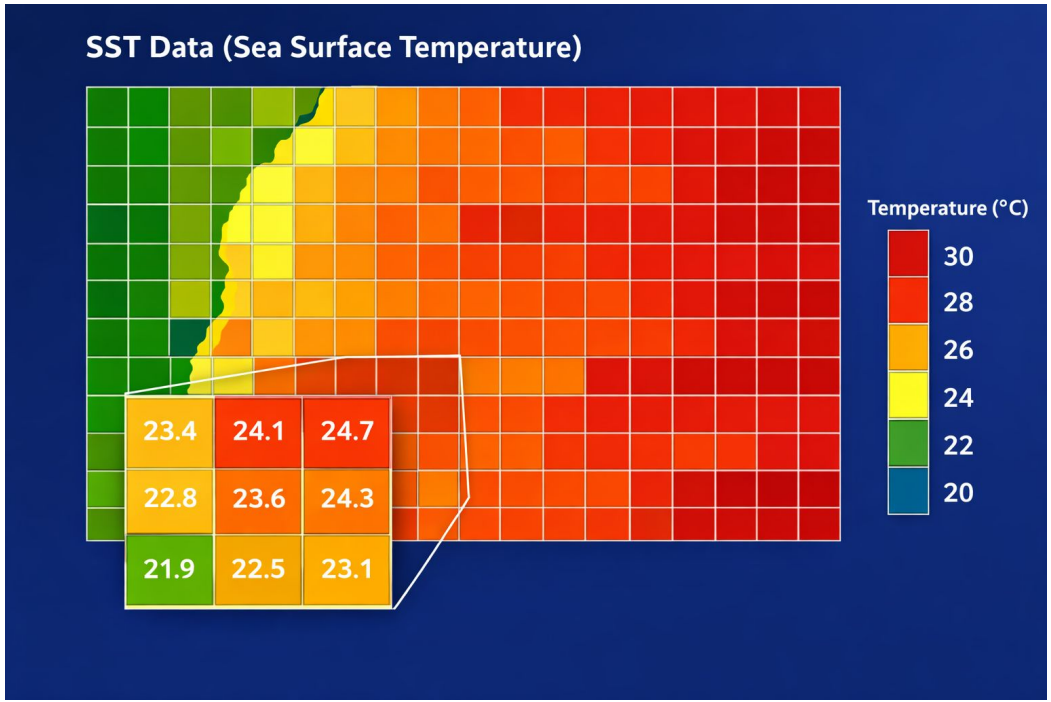
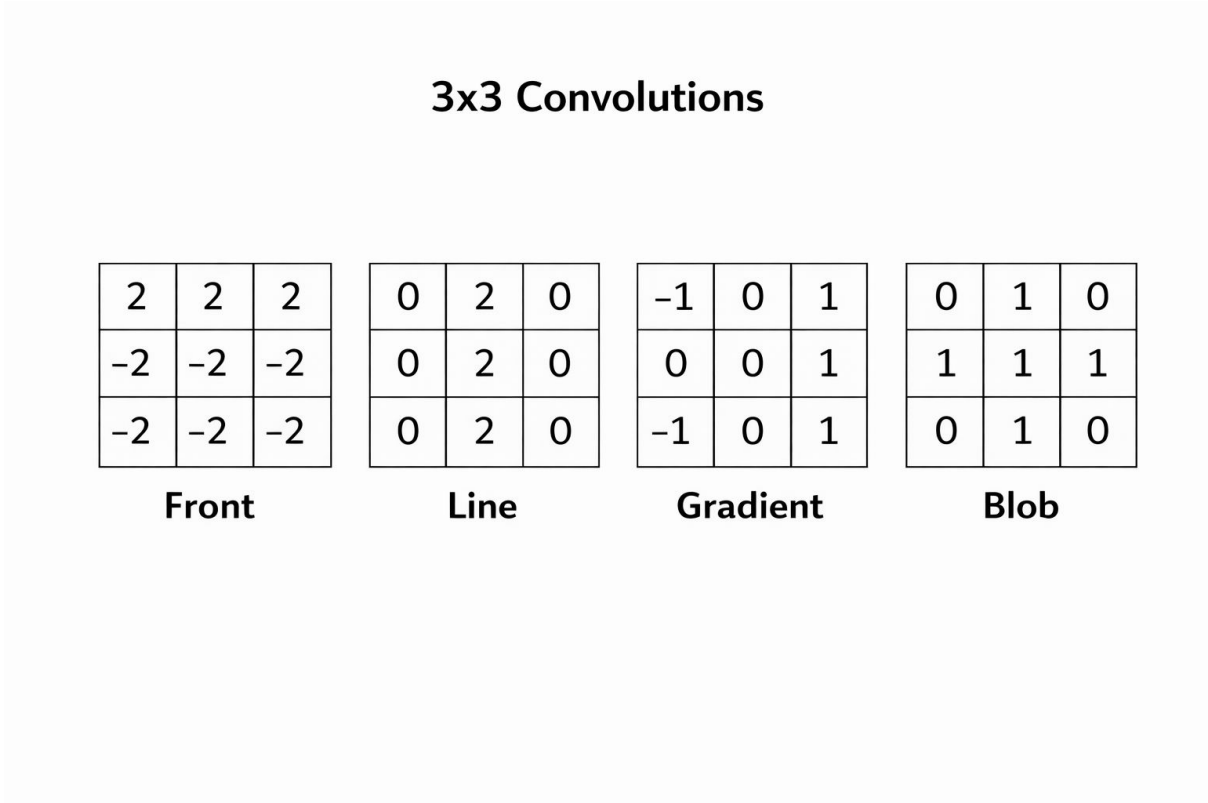
Intro to Convolutional Neural Networks

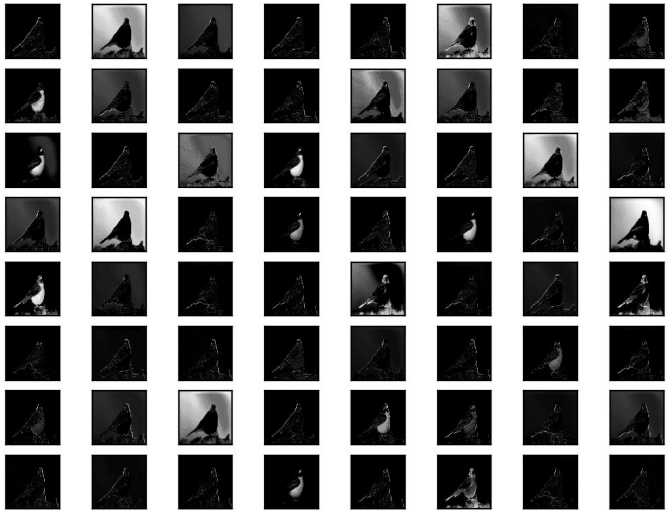

SST Data (Sea Surface Temperature)
23.4
24.1
24.7
22.8
23.6
24.3
21.9
22.5
23.1
Temperature (°C)
30
28
26
24
22
20

Layer 1: Detects small scale features, gradients, fronts



Layer 1: 64 feature maps

“Each feature map shows where its pattern appears.”



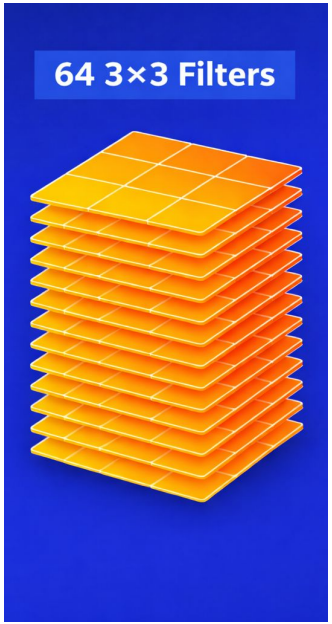
Layer 2. looks at all the new 64 feature maps *together*.

Our new convolutions are 3x3x64, a set or stack.

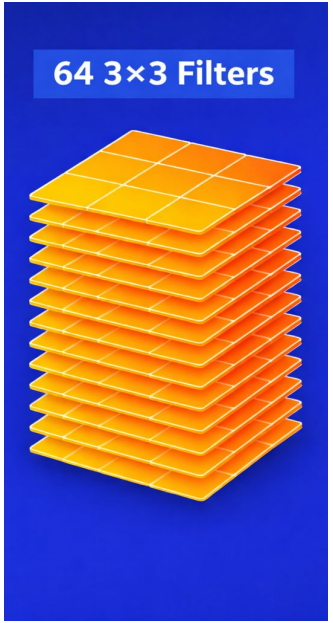
Layer 2 asks “How do the local features combine to explain our output?”

Layer 2 learns things like:

“NS gradient + some blob + some level”



Multiply the 2 and sum up



We compare and train model to minimize the difference