CNN Architecture









Convolution Operation



* Input Image with padding to maintain same size in the output image.

Convolution Operation with Multi Channel Image



Convolution Operation to generate Multiple Feature Maps



* Weight Sharing

Translation Equivariance due to Convolution



Pooling



Invariance to Translation with Pooling



Invariant to Rotation due to Pooling



Down Sampling with Pooling



Max Pooling with a width of three pixels and stride of two pixels between pooling regions.