

Name: Gundeep Singh Saluja

CWID: 20005427

1. The main advantage of CNN compared to its predecessors is that it automatically detects the important features without any human supervision. For example, given many pictures of cats and dogs it learns distinctive features for each class by itself. CNN is also computationally efficient.
2. Max Pooling helps in extracting low-level features like edges, points, etc. Avg Pooling goes for smooth features. The main purpose of pooling is helping in extracting sharper and smoother features. It helps to lower the variance.
3. Local Response Normalization (LRN) was first used in AlexNet architecture where the activation function was ReLU as opposed to the more common tanh and sigmoid functions at that time. The primary reason for using LRN was to encourage lateral inhibition.