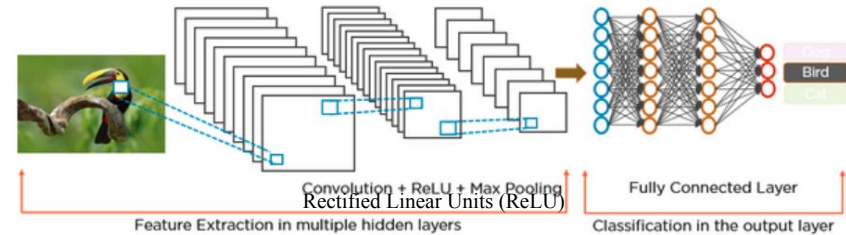


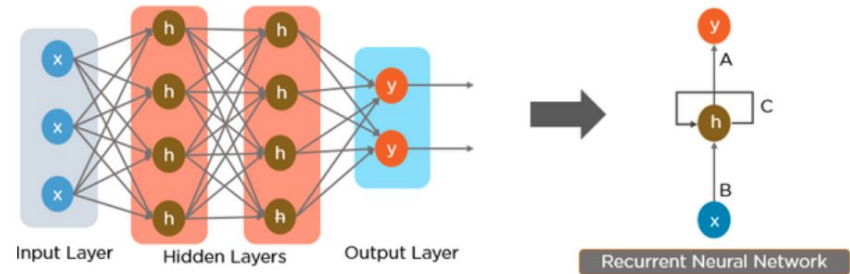
CNN (Convolutional Neural Network):

- It is suitable for spatial data such as images.
- CNN is considered to be more powerful than RNN.
- This network takes fixed size inputs and generates fixed size outputs.
- CNN is a type of feed-forward artificial neural network with variations of multilayer perceptrons designed to use minimal amounts of preprocessing.
- CNNs use connectivity pattern between the neurons. This is inspired by the organization of the animal visual cortex, whose individual neurons are arranged in such a way that they respond to overlapping regions tiling the visual field.
- CNNs are ideal for images and video processing.

Below is an example of how CNN looks like:



A Recurrent Neural Network looks something like this:



RNN (Recurrent Neural Network):

- RNN is suitable for temporal data, also called sequential data.
- RNN includes less feature compatibility when compared to CNN.
- RNN can handle arbitrary input/output lengths.
- RNN unlike feed forward neural networks - can use their internal memory to process arbitrary sequences of inputs.
- Recurrent neural networks use time-series information - what a user spoke last will impact what he/she will speak next.
- RNNs are ideal for text and speech analysis.