

# Recurrent Neural Networks (RNNs)

## Understanding RNNs

What?

Powerful for processing sequences of data, such as time series or natural language

Used in tasks like language modeling, translation, and speech recognition.

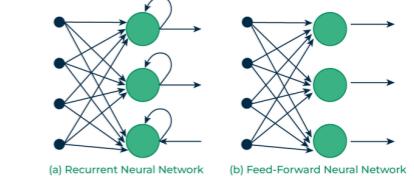
The output from the previous step is fed as input to the current step

RNN Architecture

In traditional neural networks, all the inputs and outputs are independent of each other, but this is not a good idea if we want to predict the next word in a sentence

RNNs also have a hidden stage which used to capture information about a sentence

RNNs have a 'memory', which is used to capture information about the calculations made so far



Project - Building a Character-Level Language Model using an RNN