

Training Day-70 Report:

1. Feedforward Neural Networks (FNN)

The simplest form where information moves forward only. Like assembly line workers passing materials ahead, each neuron processes data and sends it to the next layer. Great for straightforward tasks like classifying emails as spam or not spam.

2. Convolutional Neural Networks (CNN)

Think of CNNs as art critics who look at different parts of a painting separately. They scan images in small chunks, detecting features like edges, textures, and shapes. This makes them excellent for tasks like facial recognition or identifying objects in photos.

3. Recurrent Neural Networks (RNN)

Imagine someone reading a book - they understand each sentence based on previous sentences. RNNs work similarly, maintaining memory of past information to understand sequences. Perfect for translation or predicting stock prices based on historical data.

4. Long Short-Term Memory (LSTM)

An improved version of RNN. Like a smart note-taker, it decides what information to remember or forget. This helps with longer sequences where regular RNNs might forget early information. Used in virtual assistants and text prediction.

5. Generative Adversarial Networks (GAN)

Picture an art student (Generator) and a teacher (Discriminator). The student creates artwork, the teacher critiques it. Through this process, the student improves at creating realistic art. GANs use this concept to generate realistic images or data.

6. Transformer Networks

The most advanced type. Unlike reading a book linearly, they can jump between different parts of text simultaneously. This parallel processing makes them extremely efficient for tasks like language understanding and generation.