

Deep Learning

Deep Learning is a subset of machine learning that employs artificial neural networks with multiple layers (deep architectures) to learn complex patterns from data. It has revolutionized various fields, including computer vision, natural language processing, and speech recognition, by achieving state-of-the-art performance in many tasks. Deep learning models consist of multiple layers of interconnected nodes (neurons) that process and transform data hierarchically, enabling them to learn abstract representations and make accurate predictions. Common architectures include convolutional neural networks (CNNs), recurrent neural networks (RNNs), and transformers.