Deep Learning (DL) is a specialized branch of machine learning that focuses on neural networks with multiple layers, enabling systems to process complex patterns and data representations. DL has driven breakthroughs in computer vision, speech recognition, and natural language processing. Technologies like convolutional neural networks (CNNs) and recurrent neural networks (RNNs) are commonly used in DL applications. A key advantage of DL is its ability to automatically extract features from raw data, reducing the need for manual intervention. However, DL models often require significant computational resources and large datasets to perform effectively. Ethical issues such as bias and interpretability are ongoing areas of concern.