Artificial Intelligence and Machine Learning

Introduction to AI  
Artificial Intelligence (AI) is a branch of computer science that aims to create intelligent machines capable of performing tasks that typically require human intelligence. These tasks include learning, reasoning, problem-solving, perception, and language understanding.

Machine Learning Fundamentals  
Machine Learning is a subset of AI that enables computers to learn and improve from experience without being explicitly programmed. There are three main types of machine learning: supervised learning, unsupervised learning, and reinforcement learning.

Deep Learning Applications  
Deep Learning uses neural networks with multiple layers to model and understand complex patterns. It has revolutionized fields like computer vision, natural language processing, and speech recognition.