



# AI Agents in Action: From Generative Models to Autonomous, Decision-Making Systems

## Introduction

The rise of **AI large models** is propelling AI agents far beyond simple content generation into the realm of **autonomous decision-making**. From self-driving vehicles and algorithmic trading to intelligent customer service and robotic automation, AI agents are now executing increasingly complex tasks across every industry, becoming a defining lever of enterprise intelligent transformation. Yet building agents that work reliably in the real world remains hard: today's systems still struggle with reasoning depth, real-time environmental perception, multi-agent coordination, and security. For technical professionals and industry practitioners, mastering the theoretical foundations, key technologies, and practical applications of AI agents has become urgent and decisive.

This expert-led training delivers a structured deep-dive into AI agents driven by large models covering their core concepts, technical architecture, and high-impact application scenarios. It walks through how agents achieve autonomous decision-making through **perception, memory, reasoning, and execution**, and unpacks the key technologies that make them work in production: multi-agent collaboration, real-time state tracking, and tool integration. Through concrete case studies in autonomous driving, financial trading, intelligent customer service, and robotics, the course illustrates real design patterns and operational outcomes equipping participants to design, build, and deploy efficient, reliable AI agents that deliver measurable business value.

## Course Objectives

By the end of this course, learners will be able to:

1. Understand the foundational concepts and strategic value of AI Agents.
2. Master the technical architecture and core capabilities of agent technologies built on top of large models.
3. Identify high-impact application scenarios and proven development methods for AI Agents across industries.

## Target Trainees

AI architects, engineers, technology professionals, product managers, business strategists, and IT support staff working with large model-based intelligent systems, autonomous agents, or AI-driven automation.

## Duration

1h20 min

## Course Contents :

Module 1 : AI Agent Foundations: Core Concepts and High-Impact Application Scenarios

Module 2 : Inside the Engine: Key Technologies Powering Modern AI Agents

Module 3 : From Design to Deployment: Building and Operationalizing Real-World AI Agents