

30 Agents at a Glance

From **30 Agents Every AI Engineer Must Build** — Imran Ahmad, PhD (Packt, 2026)
Companion code, all 30 agents, no-API-key simulation + local Ollama: github.com/PacktPublishing/30-Agents-Every-AI-Engineer-Must-Build

PART 1 — FOUNDATIONS & TOOLKIT (CH 1–4)

#	AGENT / FOCUS	CH
—	Foundations of Agent Engineering — cognitive loop, progression framework	Ch 1
—	The Agent Engineer's Toolkit — frameworks, LLMs, vector DBs, cloud	Ch 2
—	The Art of Agent Prompting — PTCF blueprint, prompt architecture	Ch 3
—	Deployment & Responsible Development — cost, injection defense, compliance	Ch 4

PART 2 — CORE AGENT ARCHITECTURES

#	AGENT	CH
1	The Autonomous Decision-Making Agent	Ch 5
2	The Planning Agent	Ch 5
3	The Memory-Augmented Agent	Ch 5
4	The Knowledge Retrieval Agent (advanced RAG)	Ch 6
5	The Document Intelligence Agent	Ch 6
6	The Scientific Research Agent	Ch 6
7	The Tool-Using Agent	Ch 7
8	The Chain-of-Agents Orchestrator	Ch 7
9	The Agentic Workflow System	Ch 7
10	The Data Analysis Agent	Ch 8
11	The Verification & Validation Agent	Ch 8
12	The General Problem Solver	Ch 8

PART 3 — SPECIALIZED APPLICATION AGENTS

#	AGENT	CH
13	The Code-Generation Agent	Ch 9
14	The Security-Hardened Agent	Ch 9
15	The Self-Improving Agent	Ch 9
16	The Conversational Agent	Ch 10
17	The Content Creation Agent	Ch 10
18	The Recommendation Agent	Ch 10
19	The Vision-Language Agent	Ch 11
20	The Audio Processing Agent	Ch 11
21	The Physical World Sensing Agent	Ch 11
22	The Ethical Reasoning Agent	Ch 12
23	The Explainable Agent	Ch 12

PART 4 — DOMAIN-SPECIFIC SYSTEMS

#	AGENT	CH
24	The Healthcare Intelligence Agent	Ch 13
25	The Scientific Discovery Agent	Ch 13
26	The Financial Advisory Agent	Ch 14
27	The Legal Intelligence Agent	Ch 14
28	The Education Intelligence Agent	Ch 15
29	The Collective Intelligence Agent	Ch 15
30	The Embodied Intelligence Agent	Ch 16