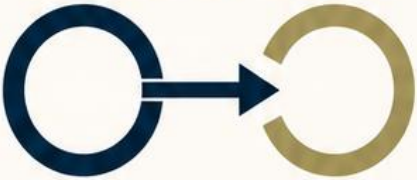


AI ENGINEERING: FROM CODER TO AGENT ORCHESTRATOR

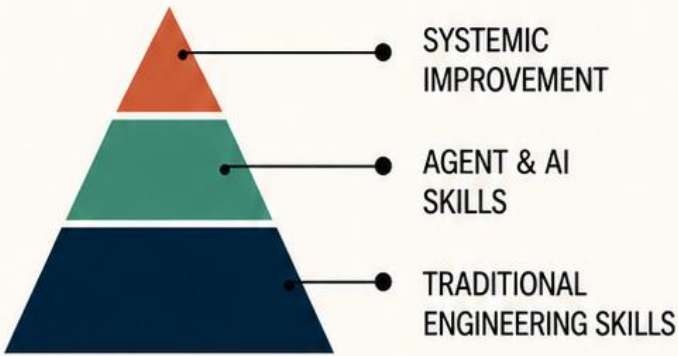
Based on the model by Lars R  wekamp

ENGINEERING SHIFT FROM HUMAN IN THE LOOP TO HUMAN ON THE LOOP



- The human role shifts away from writing code foundation.
- The lower the level, the more traditional skills matter.
- The higher the level, the more agent and AI skills matter.

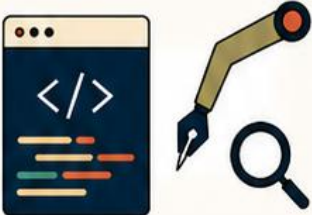
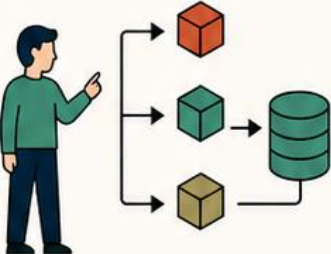
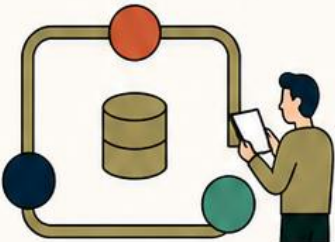
FOUNDATION OF EXPERTISE



The Four Stages of AI Engineering

MATURITY MODEL COMPARISON

(Model by Lars R  wekamp)

	AI ROLE	ENGINEER ROLE	KEY SKILLS
 LEVEL 0. TRADITIONAL DEVELOPMENT	• AI has little to no role in development. • No hands-on development.	• The engineer analyzes requirements, designs the solution, implements, tests, and assures quality directly. • Implements and ensures quality.	• Software architecture • Programming and debugging • Performance and security • Domain knowledge
 LEVEL 1. ASSISTED DEVELOPMENT	• AI generates code and documentation for individual tasks. • Generates code for tasks.	• The engineer selects tasks, provides context, reviews results, and decides at every step. • Reviews results and gives context.	• Clear task formulation • Understanding generated code • Verifying quality
 LEVEL 2. ORCHESTRATED DEVELOPMENT	• Multiple agents process tickets in parallel. • Agents process tickets.	• The engineer moves to a Human on the Loop role, breaking down tasks, monitoring workflows, and resolving conflicts. • Monitors and consolidates output.	• Task decomposition • Workflow design • Agent orchestration
 LEVEL 3. AGENT-BASED DEVELOPMENT SYSTEM	• AI organizes the development process autonomously. • Organizes development.	• The engineer defines goals and quality criteria, focusing on improving the agentic system rather than the code. • Defines goals and improves system.	• Observability • Drift detection • Governance • Platform engineering • FinOps