

Role-Based AI Literacy Framework

Beginner Level Competencies

LEGEND:

(A) Awareness <i>Understanding AI exists and basic concepts</i>
(B) Application <i>Using AI tools effectively</i>
(C) Integration <i>Managing AI strategically</i>
(E) Ethics Risk awareness, bias, privacy, responsible use (present at ALL levels)

ROLE	LEVEL	COMPETENCY
Administrator	A	Understand how AI impacts system management and user access
	B	Use AI-powered monitoring and automation tools effectively
	C	Plan for AI service deployment and user provisioning
	E	Manage identity and access for AI systems, understand data governance
AI Edge Engineer	A	Understand edge computing and how AI models run on edge devices
	B	Deploy pre-built AI models to edge environments
	C	Design edge AI architectures that balance performance and latency
	E	Address privacy concerns with on-device AI processing

AI Engineer	A	Understand ML fundamentals, model types, and AI service landscape
	B	Use pre-built AI services (vision, language, speech) via APIs
	C	Connect AI services to applications, handle errors and fallbacks
	E	Recognize bias in models, understand responsible AI principles
App Maker	A	Recognize opportunities to enhance apps with AI capabilities
	B	Integrate AI services using low-code tools and connectors
	B	Write effective prompts for AI features in applications
	E	Ensure user consent for AI features, transparent AI use disclosure
Auditor	A	Understand how organizations are using AI and associated risks
	B	Evaluate AI system documentation and governance controls
	C	Assess AI-related compliance with regulations and standards
	E	Audit for bias, fairness, transparency, and accountability in AI systems
Business Analyst	A	Understand AI capabilities and how they solve business problems
	B	Use AI tools for data analysis, visualization, and insights
	B	Document requirements for AI-enhanced business processes
	E	Consider ethical implications when recommending AI solutions

Business Leader	A	Understand AI capabilities and limitations for strategic planning
	C	Make informed decisions about AI investments (build vs. buy, ROI)
	C	Assess strategic implications of AI for industry and workflows
	E	Understand risk landscape (bias, privacy, regulatory compliance)
Business Owner	A	Identify where AI creates competitive advantage for the business
	B	Use AI tools for business operations (marketing, customer service)
	C	Evaluate AI vendors and services for business needs
	E	Ensure responsible AI use protects customers and brand reputation
Business User	A	Recognize AI in everyday business tools (copilots, assistants)
	B	Write effective prompts to get quality AI outputs
	B	Critically evaluate AI-generated content before using it
	E	Understand when to disclose AI use, protect sensitive information
Data Analyst	A	Understand how AI/ML enhances data analysis workflows
	B	Use AI-powered analytics tools for insights and visualization
	B	Prepare data appropriately for AI/ML consumption
	E	Recognize bias in data and AI-generated insights

Data Engineer	A	Understand data requirements for AI/ML systems
	B	Build data pipelines that support AI workloads
	C	Design data architectures that enable AI at scale
	E	Implement data governance and privacy controls for AI systems
Data Scientist	A	Understand AI service offerings and when to use pre-built vs. custom
	B	Use ML platforms for experimentation and model training
	C	Implement model deployment and monitoring workflows (MLOps basics)
	E	Evaluate models for fairness, explainability, and bias
Database Administrator	A	Understand how AI workloads impact database performance
	B	Optimize databases for AI/ML query patterns
	B	Use AI-powered database management and tuning tools
	E	Secure sensitive data used for AI training and inference
Developer	A	Understand available AI services and APIs for application development
	B	Integrate AI capabilities into applications via SDKs/APIs
	B	Handle AI service responses, errors, and edge cases
	E	Implement responsible AI practices in code (transparency, consent)

DevOps Engineer	A	Understand AI/ML deployment and operations requirements
	B	Deploy and monitor AI services in production environments
	C	Implement CI/CD pipelines for AI/ML models (MLOps)
	E	Ensure AI system reliability, security, and governance in production
Functional Consultant	A	Identify where AI adds value to business processes
	B	Configure AI-powered features in business applications
	C	Design AI-enhanced solutions that meet client requirements
	E	Advise clients on responsible AI implementation
Higher Education Educator	A	Understand how AI impacts teaching, learning, and academic integrity
	B	Use AI tools for course design, feedback, and administrative tasks
	B	Detect and address AI-generated student work appropriately
	E	Foster academic integrity while teaching responsible AI use
K-12 Educator	A	Recognize AI in educational technology and student tools
	B	Use AI for differentiated instruction and lesson planning
	B	Teach age-appropriate AI literacy to students
	E	Protect student privacy, ensure age-appropriate AI use

Network Engineer	A	Understand how AI workloads impact network architecture
	B	Optimize network for AI service traffic and latency requirements
	B	Use AI-powered network monitoring and troubleshooting tools
	E	Secure AI traffic and protect data in transit
Privacy Manager	A	Understand privacy risks specific to AI systems (data collection, inference)
	B	Assess AI systems for GDPR, CCPA, and privacy compliance
	C	Design privacy frameworks for AI deployment
	E	Balance AI innovation with individual privacy rights
Risk Practitioner	A	Identify AI-specific risks (bias, hallucinations, security vulnerabilities)
	B	Conduct risk assessments for AI implementations
	C	Develop AI risk management frameworks and controls
	E	Evaluate ethical risks and organizational AI governance
School Leader	A	Understand AI's impact on education and school operations
	C	Make strategic decisions about AI adoption in schools
	C	Develop school policies for staff and student AI use
	E	Ensure equitable access, student privacy, and responsible AI use

Security Engineer	A	Understand AI-specific security threats (prompt injection, data poisoning)
	B	Secure AI workloads and services in production
	B	Use AI-powered security tools for threat detection
	E	Balance security controls with AI innovation and user experience
Security Operations Analyst	A	Recognize how AI enhances and creates security challenges
	B	Use AI-powered SIEM and threat detection tools effectively
	B	Investigate AI-related security incidents
	E	Understand privacy implications of AI-powered monitoring
Service Adoption Specialist	A	Understand how AI changes user experience and adoption patterns
	B	Train users on AI-powered features and tools
	C	Design change management strategies for AI adoption
	E	Ensure transparent communication about AI capabilities and limitations
Solution Architect	A	Understand AI service capabilities across cloud platforms
	C	Design solutions that appropriately integrate AI services
	C	Make architectural decisions about AI placement and scalability
	E	Ensure responsible AI principles in solution design

Startup Founder	A	Identify where AI creates competitive advantage and value
	C	Make strategic decisions about AI investments and priorities
	B	Use AI tools to accelerate product development and operations
	E	Build ethical AI practices into company culture from the start
Student	A	Understand what AI is and where it's used in daily life
	B	Use AI tools responsibly for learning (not cheating)
	B	Critically evaluate AI-generated information
	E	Understand academic integrity and appropriate AI use
Support Engineer	A	Recognize AI in support tools and customer-facing systems
	B	Troubleshoot AI service issues and outages
	B	Use AI-powered support tools for faster resolution
	E	Protect customer data when working with AI systems
Technology Manager	A	Understand AI's impact on team workflows and technology strategy
	C	Make decisions about AI tool adoption and team enablement
	C	Manage AI-related budgets and vendor relationships
	E	Ensure team uses AI responsibly and in compliance with policies

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