

AI Fundamentals

Training Program Curriculum

Empower Business, Product, Operations, and IT Teams with the Strategic Capabilities to Lead in the AI Era



Module 1: Understanding Generative AI

Overview

Explore the foundational concepts of generative artificial intelligence and discover how AI is revolutionizing every aspect of business and daily life. This module provides a comprehensive introduction to AI capabilities, limitations, and real-world applications across industries.

● Key Learning Areas:

- AI in everyday life: From smartphone features to enterprise applications
- 20 amazing AI capabilities transforming transportation, healthcare, finance, and creative industries
- Building blocks of AI: Neural networks, transformers, and large language models
- How ChatGPT and similar systems actually work: Tokenization, training, and generation processes
- Understanding AI limitations: Bias, hallucinations, and ethical considerations
- The AI ecosystem: NVIDIA's role, GPU computing, and infrastructure requirements

Practical Outcome:

Develop a comprehensive understanding of AI's current capabilities and limitations to make informed strategic decisions about AI adoption in your organization.

Module 2: Understanding Generative AI

Overview

Master advanced techniques for working with AI systems and gain hands-on experience with cutting-edge AI tools. Learn to create effective prompts, understand multi-modal capabilities, and leverage both proprietary and open-source AI solutions.

● Key Learning Areas:

- Advanced prompting techniques: Instructional, analytical, creative, and role-playing prompts
- Fine-tuning and customization: Creating specialized AI models for specific business needs
- Latest AI models: GPT-4.1, OpenAI o3, Claude, Gemini, and their unique capabilities
- Multi-modal AI integration: Text, image, audio, and video processing in unified systems
- Voice AI and computer vision: Practical applications in business automation
- Open-source alternatives: LLaMA, BLOOM, DeepSeek, and their enterprise applications

Practical Outcome:

Gain hands-on proficiency with leading AI tools and develop the skills to effectively integrate AI capabilities into existing business workflows.

Module 3: Advanced Concepts in AI

Overview

Dive deep into sophisticated AI architectures and governance frameworks essential for enterprise deployment. Understand how to build AI systems that are accurate, reliable, and aligned with organizational values and compliance requirements.

● Key Learning Areas:

- Retrieval-Augmented Generation (RAG): Connecting AI to real-time data and knowledge bases

- AI agents and autonomous systems: Building intelligent workflows that operate independently
- AI governance frameworks: Establishing principles for transparency, accountability, and fairness
- Bias detection and mitigation: Identifying and addressing discrimination in AI systems
- Responsible AI implementation: Balancing innovation with ethical considerations
- Enterprise AI architecture: Designing scalable, secure, and maintainable AI solutions

Practical Outcome:

Gain hands-on proficiency with leading AI tools and develop the skills to effectively integrate AI capabilities into existing business workflows.

Module 4: AI Across Industries

Overview

Examine how artificial intelligence is transforming key industries and creating new business models. Analyze real-world case studies and implementation strategies across healthcare, finance, manufacturing, and service sectors.

• Key Learning Areas:

- Healthcare transformation: Medical imaging, drug discovery, personalized treatment, and diagnostic AI
- Financial services revolution: Algorithmic trading, fraud detection, robo-advisors, and regulatory technology
- Customer service evolution: Conversational AI, sentiment analysis, and intelligent routing systems
- Transportation and logistics: Autonomous vehicles, route optimization, and predictive maintenance
- Education and training: Adaptive learning systems, AI tutors, and personalized curriculum design
- Small business applications: Practical AI tools for scheduling, marketing, accounting, and operations

Practical Outcome:

Identify specific AI opportunities within your industry and develop strategic plans for competitive advantage through AI-driven innovation.



Module 5: AI Software Development & Productivity Tools

Overview

Understand how AI is revolutionizing software development processes and explore the major cloud platforms powering AI innovation. Learn to navigate the complex ecosystem of AI tools, platforms, and infrastructure options.

• Key Learning Areas:

- AI-powered development lifecycle: From planning and coding to testing and deployment automation
- Major AI platforms comparison: OpenAI, Google AI, Microsoft Azure, AWS, and Meta AI ecosystems
- Cloud infrastructure for AI: Computing resources, storage solutions, and cost optimization strategies
- AI development tools: GitHub Copilot, Cursor, Replit AI, and other productivity enhancers
- Enterprise AI deployment: Security, compliance, monitoring, and scalability considerations
- Future of development: Emerging trends in AI-assisted programming and no-code/low-code solutions

Practical Outcome:

Make informed decisions about AI platform selection, infrastructure investments, and development tool adoption for your organization's technical teams.

Module 6: Executing AI Strategy & Projects

Overview

Learn to successfully plan, execute, and scale AI initiatives within your organization. Master the unique challenges of AI project management and develop strategies for organizational transformation and change management.

● Key Learning Areas:

- AI project lifecycle management: From problem definition to deployment and monitoring
- Strategic AI implementation: Building roadmaps, prioritizing initiatives, and measuring success
- Organizational change management: Preparing teams for AI-augmented workflows and new roles
- Future AI trends: Artificial General Intelligence (AGI), quantum computing, and brain-computer interfaces
- Building AI-ready cultures: Skills development, training programs, and talent acquisition strategies
- AI industrialization: Scaling successful pilots into enterprise-wide transformations

Practical Outcome:

Develop comprehensive AI strategies and execution plans that align with business objectives while successfully managing organizational change and transformation.

