

# Advanced Generative AI Development on AWS (AGAIID)

**Price:** 2025

**Duration:** 3 days

**Delivery Methods:** Virtual

## Overview

### Course Overview

The Advanced Generative AI Development on AWS is designed for developers seeking to master the implementation of production-ready generative AI solutions on AWS. The course addresses the needs of organizations embarking on their generative AI journey and how to build comprehensive generative AI strategies that align with broader business objectives. This advanced 3-day instructor-led training builds expertise across the entire generative AI stack – from foundation models to enterprise integration patterns. In addition, you will learn about advanced data processing techniques, vector database implementation and retrieval augmentation, sophisticated prompt engineering and governance, agentic AI systems and tool integration, AI safety and security measures, performance optimization and cost management strategies, comprehensive monitoring and observability solutions, testing and validation frameworks. The course structure follows AWS's proven model for generative AI adoption, progressing from experimentation to production-ready implementations.

### Who should attend

- Software developers
- Technical Professionals

### Prerequisites

- AWS Technical Essentials

- Generative AI Essentials on AWS
- 2 or more years of experience building production grade applications on AWS or with open-source technologies, general AI/ML or data engineering experience
- 1 year of hands-on experience implementing generative AI solutions

## **Course Objectives**

- Develop production-ready generative AI solutions using AWS services that meet enterprise requirements for security, scalability, and reliability
- Evaluate and select appropriate foundation models for specific business use cases, including benchmarking performance and implementing dynamic model selection architectures
- Design and implement resilient foundation model systems with circuit breakers, cross-region deployment, and graceful degradation strategies
- Build comprehensive data processing pipelines for multi-modal inputs, including validation workflows and optimization techniques
- Implement sophisticated vector database solutions using Amazon Bedrock Knowledge Bases, OpenSearch, and hybrid approaches for effective retrieval augmentation
- Create and manage advanced prompt engineering frameworks, including chain-of-thought reasoning and enterprise-wide prompt governance systems
- Develop autonomous AI agents using Amazon Bedrock Agents, implementing complex reasoning patterns and tool integration capabilities
- Implement comprehensive AI safety and security controls, including content filtering, privacy preservation, and adversarial testing mechanisms
- Optimize performance and manage costs through token efficiency strategies, batching implementations, and intelligent caching systems
- Design and implement comprehensive monitoring and observability solutions for foundation model applications
- Create systematic testing and validation frameworks for continuous quality assurance of AI applications
- Integrate generative AI solutions within enterprise environments using secure, compliant, and scalable architectural patterns

## **Outline: Advanced Generative AI Development on AWS (AGAID)**

### **Day 1**

#### **Module 1: Foundation Model Selection and Configuration**

**Module 2: Advanced Data Processing for Foundation Models**

**Module 3: Vector Databases and Retrieval Augmentation**

**Day 2**

**Module 4: Prompt Engineering and Governance**

**Module 5: Implementing Agentic AI Frameworks with Amazon Bedrock AgentCore**

**Module 6: AI Safety and Security**

**Day 3**

**Module 7: Performance Optimization and Cost Management**

**Module 8: Monitoring and Observability for Generative AI**

**Module 9: Testing, Validation, and Continuous Improvement**

**Module 10: Enterprise Integration Patterns**

**Module 11: Course wrap-up**

## **Course Schedule**

<b>Date</b>	<b>Time</b>	<b>Price</b>	<b>Options</b>
<b>06/15/2026</b>	<b>08:00 AM - 04:00 PM CT</b>	<b>2,025.00</b>	<a href="#"><u>Buy Now</u></a> <a href="#"><u>Enroll</u></a>
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