

AI+ Cloud™

Duration: 40 hrs

Course Overview

The AI+ Cloud™ certification program targets developers and IT professionals aspiring to excel in cloud computing integrated with artificial intelligence. The curriculum offers an in-depth exploration of AI and cloud computing, encompassing advanced cloud infrastructure and AI model deployment. Participants gain practical insights into cloudbased AI applications, culminating in an interactive capstone project. With these skills, graduates are primed to navigate the dynamic AI+ Cloud™ integration landscape, equipped to design and implement AI solutions seamlessly within cloud environments for sustained success.

Course Prerequisites

- A foundational understanding of key concepts in both artificial intelligence and cloud computing
- Fundamental understanding of computer science concepts like programming, data structures, and algorithms.
- Basic knowledge of mathematics as it important for machine learning, which is a core component of AI+ Cloud program.
- Familiarity with cloud computing platforms like AWS, Azure, or GCP

Course Agenda

Module 1: Fundamentals of Artificial Intelligence (AI) and Cloud

- Introduction to AI and Its Application
- Overview of Cloud Computing and Its Benefits
- Benefits and Challenges of AI-Cloud Integration

Module 2: Introduction to Artificial Intelligence

- Basic Concepts and Principles of AI
- Machine Learning and Its Applications

- Overview of Common AI Algorithms
- Introduction to Python Programming for AI

Module 3: Fundamentals of Cloud Computing

- Cloud Service Models
- Cloud Deployment Models
- Key Cloud Providers and Offerings (AWS, Azure, Google Cloud)

Module 4: AI Services in the Cloud

- Integration of AI Services in Cloud Platform
- Working with Pre-built Machine Learning Models
- Introduction to Cloud-based AI tools

Module 5: AI Model Development in the Cloud

- Building and Training Machine Learning Models
- Model Optimization and Evaluation
- Collaborative AI Development in a Cloud Environment

Module 6: Cloud Infrastructure for AI

- Setting Up and Configuring Cloud Resources
- Scalability and Performance Considerations
- Data Storage and Management in the Cloud

Module 7: Deployment and Integration

- Strategies for Deploying AI Models in the Cloud
- Integration of AI Solutions with Existing Cloud-Based Applications
- API Usage and Considerations

Module 8: Future Trends in AI+ Cloud Integration

- Introduction to Future Trends
- AI Trends Impacting Cloud Integration

Module 9: Capstone Project

- Applying AI and Cloud Concepts to Solve a Real-world Problem