

Designing and Implementing an Azure AI Solution Training

Microsoft Authorized Training · Applied Technology Academy

This course is designed for developers who want to build, manage, and deploy AI solutions that leverage Azure Cognitive Services, Azure Cognitive Search, and Microsoft Bot Framework. Participants will gain hands-on experience designing and implementing AI solutions using Azure services for vision, language, speech, and decision-making applications.

LEVEL	DURATION	EXPERIENCE	AVERAGE SALARY	LABS
Intermediate	5 Days	1 year: Microsoft	\$145,000	Yes

Course Overview

- Design and implement AI solutions using Azure Cognitive Services
- Build, train, and deploy machine learning models using Azure resources
- Create conversational AI experiences with the Azure Bot Service and Bot Framework
- Implement computer vision, natural language processing, and speech solutions
- Integrate AI services securely and efficiently into existing applications

Course Outline

- **Module 1: Introduction to Azure AI Services**
 - Overview of Azure AI portfolio
 - Cognitive Services overview
 - Understanding responsible AI principles
- **Module 2: Developing AI Apps with Cognitive Services**
 - Using SDKs and REST APIs
 - Authentication and authorization with Cognitive Services
 - Managing and monitoring Azure AI resources
- **Module 3: Implementing Computer Vision Solutions**
 - Analyzing images with the Computer Vision service
 - Detecting and recognizing faces
 - Implementing custom vision models
- **Module 4: Implementing Natural Language Processing Solutions**
 - Using Azure AI Language services
 - Performing sentiment analysis, key phrase extraction, and translation
 - Building custom text classification models

- **Module 5: Implementing Speech Solutions**
 - Speech-to-text and text-to-speech capabilities
 - Translating spoken language
 - Implementing speaker recognition
- **Module 6: Creating Conversational AI with Azure Bot Service**
 - Designing conversational flows
 - Integrating Azure Cognitive Services with bots
 - Deploying and testing bots with Azure Bot Framework Composer
- **Module 7: Implementing Knowledge Mining with Azure Cognitive Search**
 - Building intelligent search solutions
 - Integrating AI enrichment into data sources
 - Managing indexes and search performance
- **Module 8: Integrating AI Models and Services**
 - Combining multiple AI services in solutions
 - Using Azure Machine Learning for custom models
 - Managing AI pipelines and deployment
- **Module 9: Monitoring, Security, and Compliance**
 - Implementing monitoring and diagnostics for AI services
 - Ensuring data privacy and compliance
 - Applying responsible AI principles in deployment

Intended Audience

- AI Engineers
- AI Developers
- Machine Learning Engineers focused on solution integration

Prerequisites

- Knowledge of Microsoft Azure and basic cloud concepts
- Experience in at least one programming language such as Python or C#
- Understanding of REST APIs and JSON data structures

Follow-On Courses

AWS Solutions Architect

Ready to enroll? Call 800.674.3550 or email Info@AppliedTechAc.com — private team cohorts, GSA MAS purchasing, military credentialing funding, VA GI Bill and VR&E and student financing available.