Enterprise Computing Solutions - Education Services

TRAINING OFFERING

You can reach us at:

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AI CERTs® AI+ Developer™

CODE:	LENGTH:	PRICE:
EDU-AIC-AT-310	8 Hours (1 day)	$495.00

Description

Get hands-on with the tools and technologies that power the AI ecosystem. Core AI Foundations: Covers Python, deep learning, data processing, and algorithm design Hands-on Projects: Focus on NLP, computer vision, and reinforcement learning Advanced Modules: Includes time series, model explainability, and cloud deployment Industry-Ready Skills: Prepares learners to design and deploy complex AI systems

Objectives

- Master Key AI Development Skills: Learn Python, deep learning, advanced concepts, and optimization techniques to build robust AI solutions.
- Specialize in Cutting-Edge AI Domains: Gain expertise in NLP, computer vision, or reinforcement learning, alongside data processing, exploratory analysis, and time series analysis.
- Stay Ahead in AI Development: AI is transforming industries, and organizations seek developers with strong proficiency in deploying AI models to solve real-world problems.
- Advance Your Career in AI Development: With growing demand across tech, finance, and healthcare sectors, this certification positions you as a leader in AI-driven development.

Audience

- Software Developers: Enhance your coding expertise by mastering AI algorithms and deep learning techniques.
- Data Enthusiasts: Apply AI-driven data analysis, machine learning models, and deep learning to solve complex problems.
- Computer Vision & NLP Researchers: Dive into specialized AI fields, including computer vision and natural language processing.
- IT Specialists & System Architects: Integrate AI solutions into existing systems and optimize performance.
- Students & Fresh Graduates: Build a strong foundation in AI development and prepare for future opportunities in tech.

Prerequisites

- Basic math, including familiarity with high school-level algebra and basic statistics, is desirable.
- Understanding basic programming concepts such as variables, functions, loops, and data structures like lists and dictionaries is essential.
- A fundamental knowledge of programming skills is required.

Program

Course Overview
Course Introduction
Module 1: Foundations of Artificial Intelligence
• 1.1 Introduction to AI
• 1.2 Types of Artificial Intelligence
• 1.3 Branches of Artificial Intelligence
• 1.4 Applications and Business Use Cases
Module 2: Mathematical Concepts for AI

• 2.1 Linear Algebra
• 2.2 Calculus
• 2.3 Probability and Statistics
• 2.4 Discrete Mathematics

Module 3: Python for Developer

• 3.1 Python Fundamentals
• 3.2 Python Libraries

Module 4: Mastering Machine Learning

• 4.1 Introduction to Machine Learning
• 4.2 Supervised Machine Learning Algorithms
• 4.3 Unsupervised Machine Learning Algorithms
• 4.4 Model Evaluation and Selection

Module 5: Deep Learning

• 5.1 Neural Networks
• 5.2 Improving Model Performance
• 5.3 Hands-on: Evaluating and Optimizing AI Models

Module 6: Computer Vision

• 6.1 Image Processing Basics
• 6.2 Object Detection
• 6.3 Image Segmentation
• 6.4 Generative Adversarial Networks (GANs)

Module 7: Natural Language Processing

• 7.1 Text Preprocessing and Representation
• 7.2 Text Classification
• 7.3 Named Entity Recognition (NER)
• 7.4 Question Answering (QA)

Module 8: Reinforcement Learning

• 8.1 Introduction to Reinforcement Learning
• 8.2 Q-Learning and Deep Q-Networks (DQNs)
• 8.3 Policy Gradient Methods

Module 9: Cloud Computing in AI Development

• 9.1 Cloud Computing for AI
• 9.2 Cloud-Based Machine Learning Services

Module 10: Large Language Models

• 10.1 Understanding LLMs
• 10.2 Text Generation and Translation
• 10.3 Question Answering and Knowledge Extraction

Module 11: Cutting-Edge AI Research

• 11.1 Neuro-Symbolic AI
• 11.2 Explainable AI (XAI)
• 11.3 Federated Learning
• 11.4 Meta-Learning and Few-Shot Learning

Module 12: AI Communication and Documentation

• 12.1 Communicating AI Projects
• 12.2 Documenting AI Systems
• 12.3 Ethical Considerations
• Optional Module: AI Agents for Developers
• 1. Understanding AI Agents
• 2. Case Studies
• 3. Hands-On Practice with AI Agents

Session Dates

On request. Please Contact Us

Additional Information

This training is also available as onsite training. Please contact us to find out more.