



AI Certification Program

AI+ Developer Practitioner™



Executive Summary

AI+ Developer Practitioner certification program offers a tailored journey in key AI domains for developers. Master Python, advanced concepts, math, stats, optimization, and deep learning. The curriculum covers data processing, exploratory analysis, and allows specialization in NLP, computer vision, or reinforcement learning. The program includes time series analysis, model explainability, and deployment intricacies. Upon completion, you'll receive a certification, showcasing your AI proficiency for real-world challenges.

Prerequisites

- Basic Math: Familiarity with high school-level algebra and basic statistics is desirable.
- Computer Science Fundamentals: Understanding the basic programming concepts (variables, functions, and loops) and data structures (lists and dictionaries).
- Fundamental knowledge of programming skills

Exam Blueprint

Number
of Questions

50

Passing
Score

35/50 or 70%

Duration

90 Minutes

Format

**Online via AI
Proctoring platform**

Question Type

**Multiple Choice/Multiple
Response**

Exam Overview

Module	Weight
Foundations of Artificial Intelligence	5%
Mathematical Concepts for AI	5%
Python for Developer	10%
Mastering Machine Learning	15%
Deep Learning	10%
Computer Vision	10%
Natural Language Processing	15%
Reinforcement Learning	5%
Cloud Computing in AI Development	10%
Large Language Models	5%
Cutting-Edge AI Research	5%
AI Communication and Documentation	5%
	100%

The logo for AI CERTs, featuring a stylized circuit icon to the left of the text "AI CERTs®".

AI CERTs®

AI⁺
Developer
Practitioner™

Certification Modules

Module 1

Foundations of Artificial Intelligence

1.1 Introduction to Neural Networks

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

Additional Module

AI Agents for Developers

1. Understanding AI Agents

2. Case Study

3. Hands-On Practice with AI Agents

Certification Outcome

This certification program provides a thorough exploration of artificial intelligence's core domains, tailored specifically for developers. It covers everything from fundamental Python mastery to advanced topics, including mathematics, statistics, optimization techniques, and deep learning. Participants delve into data pre-processing, exploratory data analysis, feature engineering, selection, and dimensionality reduction. They can specialize in NLP, computer vision, or reinforcement learning. The program also includes time series analysis, model explainability, and model deployment intricacies. Upon completion, participants receive certification, affirming their expertise in pivotal AI areas, priming them for real-world challenges and innovations.



Market Insight

As artificial intelligence becomes increasingly pervasive across various industries, there is a growing demand for AI developers who possess the skills to harness its transformative potential. This specialized AI developer certification program has been meticulously crafted to align with the evolving needs of established tech giants and emerging AI startups in this dynamic field.



Value Proposition

Participants in this program will not only gain proficiency in fundamental AI concepts but also acquire advanced technical skills essential for the successful implementation of AI solutions in real-world applications. This certification empowers AI developers with the knowledge and expertise needed to excel in the competitive world of AI development.



Additional Features

Interactive Sessions: Engage in discussions with industry experts and peers. **Hands-on Exercises:** Practical tasks to apply learned concepts in real-world scenarios. **Case Studies:** Dive deep into real business challenges and AI-driven solutions. **Post-Certification Support:** Access to a community of AI experts and enthusiasts for continuous learning and networking.

AI Experts



Jason Kellington

AI Expert

As a consultant, trainer, and technical writer with more than 25 years of experience in IT, I specialize in the development and delivery of solutions focused on effective and efficient enterprise IT.



Justin Frébault

AI Expert

I'm a boutique data consultant specializing in data mesh and lakehouse solutions. I've dedicated my career to helping organizations transform their approach to data, moving beyond mere knowledge.



J Tom Kinser

AI Expert

I have over forty years of experience in software development, data engineering, management, and technical training. I am a Microsoft Certified Trainer and a software developer, holding multiple certifications.



Terumi Laskowsky

AI Expert

Country Manager for Global Consulting Services in Japan, Specialties: Information Security (Compliance, Policy, Application, Host, Network)



aicerts.ai

Contact

252 West 37th St., Suite 1200W
New York, NY 10018

