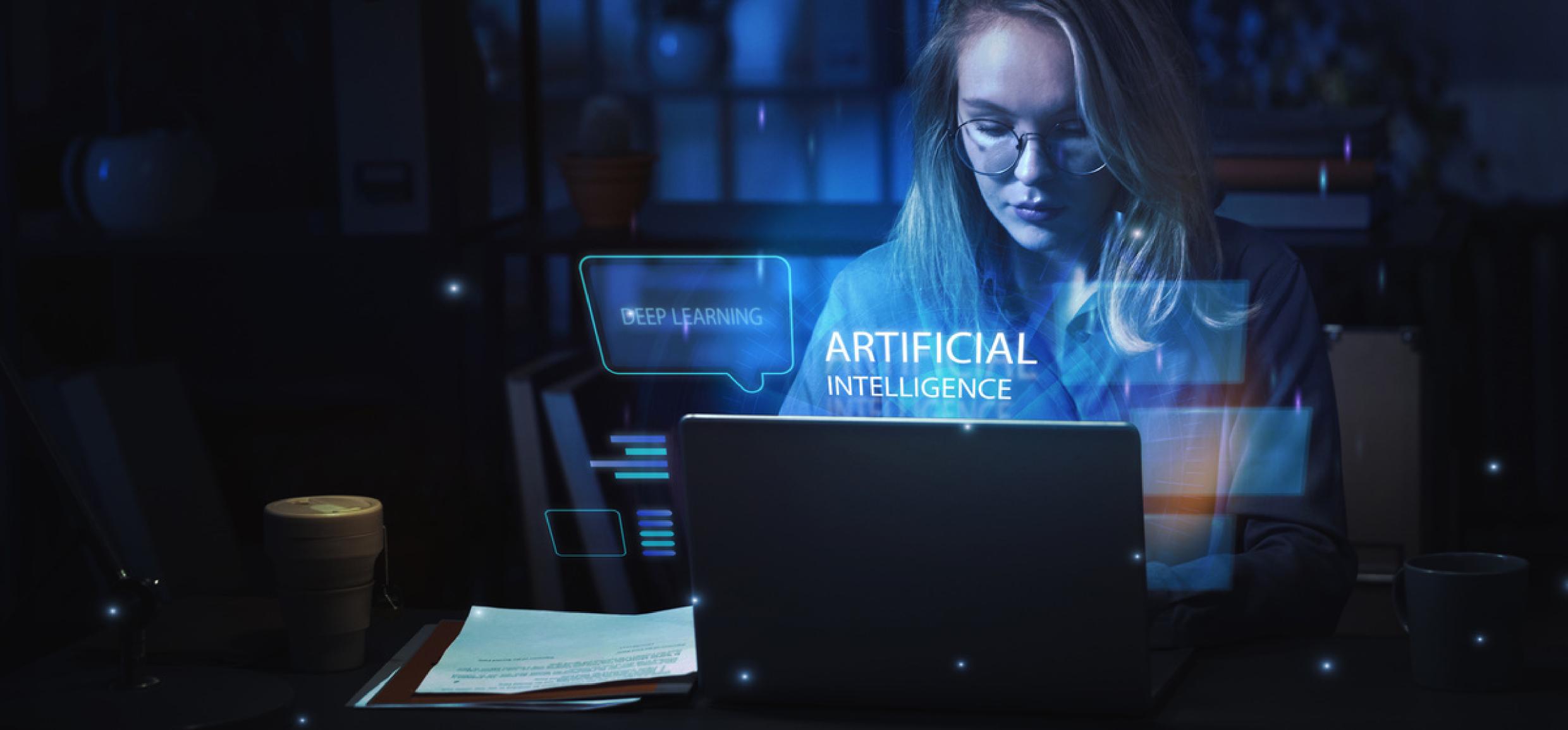
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#### **Al Certification Program**

# 

# Developertm



# **Executive Summary**

Al+ Developer<sup>™</sup> 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.



AI+ Developer Exam Blueprint

Date Issued: 1/5/2024 Version: 1.1

# 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 

#### **A CERTs**<sup>™</sup>

AI+ Developer Exam Blueprint

Date Issued: 1/5/2024 Version: 1.1

# Exam Blueprint

### Number of Questions

Passing Score

35/50 or 70%

### Duration

# 90 Minutes

#### Format

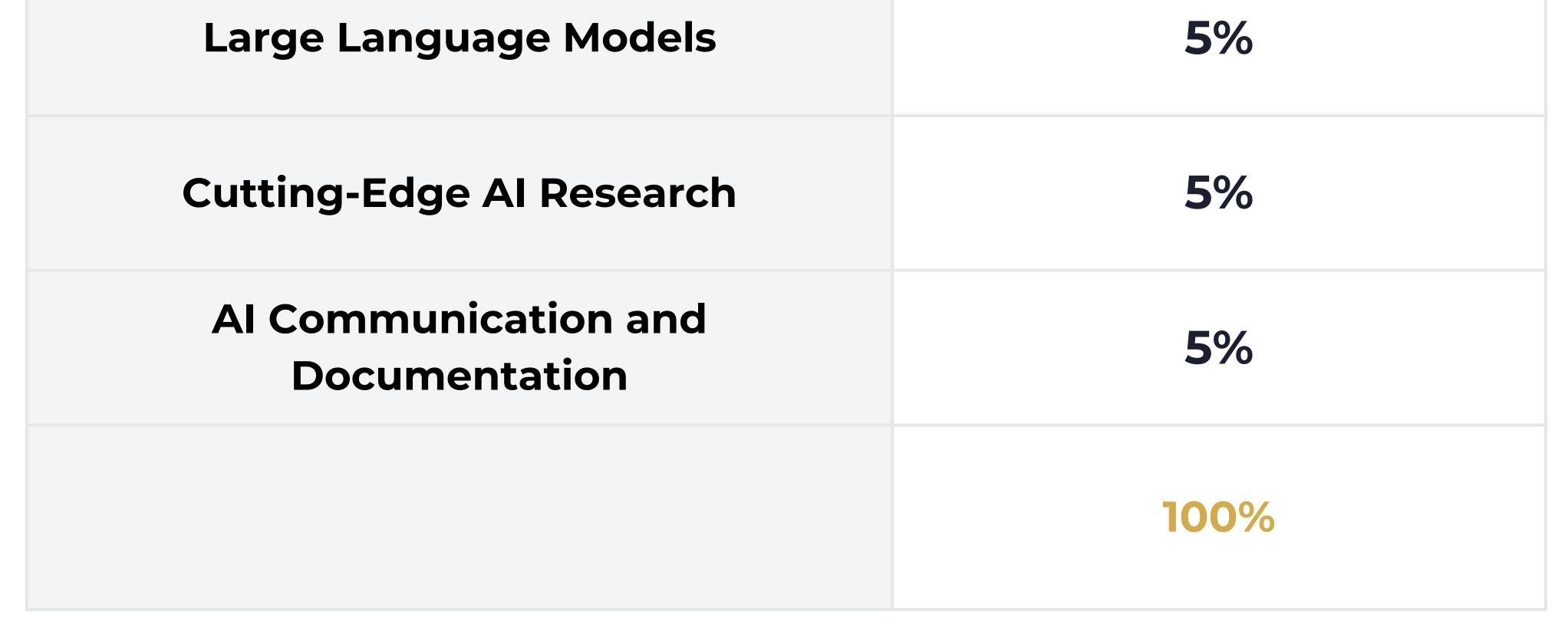
## Online via Al Proctoring platform

#### **Question Type**

## Multiple Choice/Multiple Response

# Exam Overview

Module	Weight
Foundations of Artificial Intelligence	3%
Mathematical Concepts for Al	5%
Python for Developer	10%
Mastering Machine Learning	15%
Deep Learning	10%
<b>Computer Vision</b>	10%
Natural Language Processing	15%
<b>Reinforcement Learning</b>	5%
<b>Cloud Computing in AI Development</b>	10%





# Certification Modules



## 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** 



# Mathematical Concepts for Al

2.1 Linear Algebra

2.2 Calculus

2.3 Probability and Statistics

#### **2.4 Discrete Mathematics**



# Python for Developer

**3.1 Python Fundamentals** 

#### **3.2 Python Libraries**



# 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**



## **Deep Learning**

#### **5.1 Neural Networks**

#### 5.2 Convolutional Neural Networks (CNNs)

#### 5.3 Recurrent Neural Networks (RNNs)



## **Computer Vision**

6.1 Image Processing Basics

6.2 Object Detection

6.3 Image Segmentation

#### 6.4 Generative Adversarial Networks (GANs)



# Natural Language Processing

#### 7.1 Text Preprocessing and Representation

7.2 Text Classification

#### 7.3 Named Entity Recognition (NER)

7.4 Question Answering (QA)



# Reinforcement Learning

8.1 Introduction to Reinforcement Learning

8.2 Q-Learning and Deep Q-Networks (DQNs)

8.3 Policy Gradient Methods



# **Cloud Computing in AI Development**

9.1 Cloud Computing for Al

9.2 Cloud-Based Machine Learning Services



## Large Language Models

**10.1 Understanding LLMs** 

#### **10.2 Text Generation and Translation**

#### **10.3 Question Answering and Knowledge Extraction**



## Cutting-Edge Al Research

11.1 Neuro-Symbolic Al

11.2 Explainable AI (XAI)

**11.3 Federated Learning** 

#### **11.4 Meta-Learning and Few-Shot Learning**





# Al Communication and Documentation

**12.1 Communicating AI Projects** 

12.2 Documenting Al Systems

**12.3 Ethical Considerations** 

# **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 it's 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

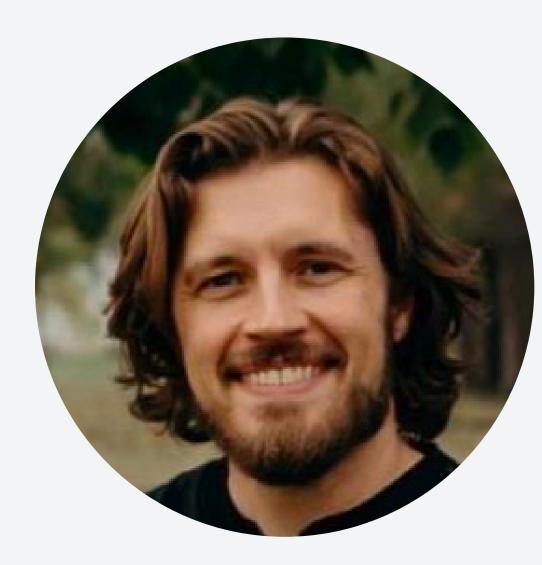
Participants in this program will not only gain proficiency in fundamental AI concepts but also acquire advanced technical skills essential for the successful implementation of AI solutions in realworld applications. This certification empowers AI developers with the knowledge and expertise needed to 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 realworld scenarios. Case Studies: Dive deep into real business challenges and Al-driven solutions. Post-Certification Support: Access to a community of Al experts and enthusiasts for continuous learning and networking.

# Al 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

Al Expert

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

# AI & BITCOIN CERTIFICATIONS!

#### aicerts.io



#### Contact

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