 **AI CERTS**®

AI + Data Practitioner™

Certification



Executive Summary

The AI+ Data Practitioner certification equips professionals with vital skills for data science. It covers key concepts like Data Science Foundations, Statistics, Programming, and Data Wrangling. Participants delve into advanced topics such as Generative AI and Machine Learning, preparing them for complex data challenges. The program includes a hands-on capstone project focusing on Employee Attrition Prediction. Emphasis is placed on Data-Driven Decision-Making and Data Storytelling for actionable insights. Personalized mentorship, immersive projects, and cutting-edge resources ensure a transformative learning journey, preparing individuals for success in AI and data science.

Prerequisites

- Basic knowledge of computer science and statistics (beneficial but not mandatory)
- Keen interest in data analysis
- Willingness to learn programming languages such as Python and R

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 Data Science	5%
Foundations of Statistics	5%
Data Sources and Types	6%
Programming Skills for Data Science	10%
Data Wrangling and Preprocessing	10%
Exploratory Data Analysis	12%
Generative AI Tools for Deriving Insights	6%
Machine Learning Refresher	10%
Advance Machine Learning	10%
Data-Driven Decision-Making	10%
Data Storytelling	6%
Capstone Project - Employee Attrition Prediction	10%
	100%

The logo for AI CERTs, featuring a stylized 'AI' with circuit-like lines and the text 'CERTs' with a registered trademark symbol.

AI CERTs®

AI⁺

Data - Practitioner™

A stylized graphic of a human head in profile, facing left, composed of glowing blue lines and dots, representing artificial intelligence or data science.

Certification Modules

Module 1

Foundations of Data Science

1.1 Introduction to Data Science

1.2 Data Science Life Cycle

1.3 Applications of Data Science

Module 2

Foundations of Statistics

2.1 Basic Concepts of Statistics

2.2 Probability Theory

2.3 Statistical Inference

Module 3

Data Sources and Types

3.1 Types of Data

3.2 Data Sources

3.3 Data Storage Technologies

Module 4

Programming Skills for Data Science

4.1 Introduction to Python for Data Science

4.2 Introduction to R for Data Science

Module 5

Data Wrangling and Preprocessing

5.1 Data Imputation Techniques

5.2 Handling Outliers and Data Transformation

Module 6

Exploratory Data Analysis (EDA)

6.1 Introduction to EDA

6.2 Data Visualization

Module 7

Generative AI Tools for Deriving Insights

7.1 Introduction to Generative AI Tools

7.2 Applications of Generative AI

Module 8

Machine Learning Refresher

8.1 Introduction to Supervised Learning Algorithms

8.2 Introduction to Unsupervised Learning

8.3 Different Algorithms for Clustering

8.4 Association Rule Learning

Module 9

Advance Machine Learning

9.1 Ensemble Learning Techniques

9.2 Dimensionality Reduction

9.3 Advanced Optimization Techniques

Module 10

Data-Driven Decision-Making

10.1 Introduction to Data-Driven Decision Making

10.2 Open Source Tools for Data-Driven Decision Making

10.3 Deriving Data-Driven Insights from Sales Dataset

Module 11

Data Storytelling

11.1 Understanding the Power of Data Storytelling

11.2 Identifying Use Cases and Business Relevance

11.3 Crafting Compelling Narratives

11.4 Visualizing Data for Impact

Module 12

Capstone Project - Employee Attrition Prediction

12.1 Project Introduction and Problem Statement

12.2 Data Collection and Preparation

12.3 Data Analysis and Modeling

12.4 Data Storytelling and Presentation

Additional Module

AI Agents for Data

1. Understanding AI Agents

2. Case Study

3. Hands-On Practice with AI Agents

Certification Outcome

Upon successful completion of the AI+ Data Practitioner certification, students will acquire a comprehensive grasp of foundational data science principles and methodologies. They will proficiently analyze, model, and extract insights from intricate datasets. Through hands-on practice in Python and R, participants will master data manipulation, visualization, and modeling techniques. They'll explore diverse data sources and storage technologies, honing skills in data wrangling and exploratory analysis for informed decision-making. By delving into advanced topics like generative AI and ensemble learning, students will tackle complex data challenges. Furthermore, they'll refine communication skills, effectively conveying data insights through storytelling and visualization. Real-world projects, including an employee attrition prediction capstone, will showcase their ability to derive actionable solutions from data.



Market Insight

High demand exists for AI and data science professionals proficient in Python, R, and advanced analytics. Effective communicators who can tackle real-world challenges like predicting employee attrition are highly sought after in today's competitive job market.



Value Proposition

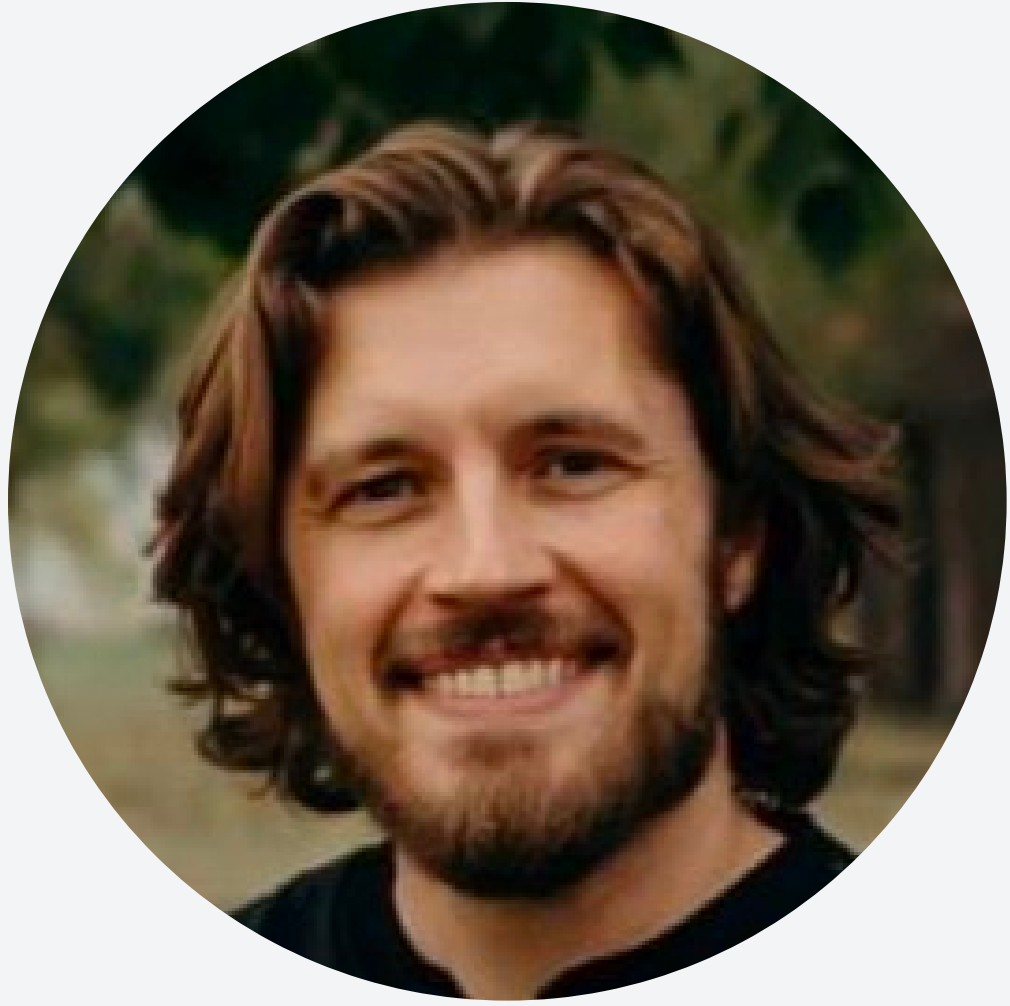
Elevate your career in AI and data science with our hands-on course. Master Python, R, and advanced analytics to tackle real-world challenges like predicting employee attrition. Gain expertise from industry leaders and unlock lucrative opportunities in the dynamic field of data-driven decision-making.



Additional Features

Our course goes beyond mastering Python, R, and advanced analytics. Enjoy personalized mentorship, immersive projects, and access to a dynamic online platform. Stay ahead with exclusive guest lectures and workshops, ensuring you're at the forefront of AI and data science trends.

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)

The logo for AI CERTs features the letters 'AI' in a bold, yellow, sans-serif font. To the left of 'AI' is a stylized yellow icon of a circuit board with three lines extending from it. To the right of 'AI' are the letters 'CERTs' in a white, bold, sans-serif font. A registered trademark symbol (®) is positioned to the upper right of the 's'.

aicerts.ai

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