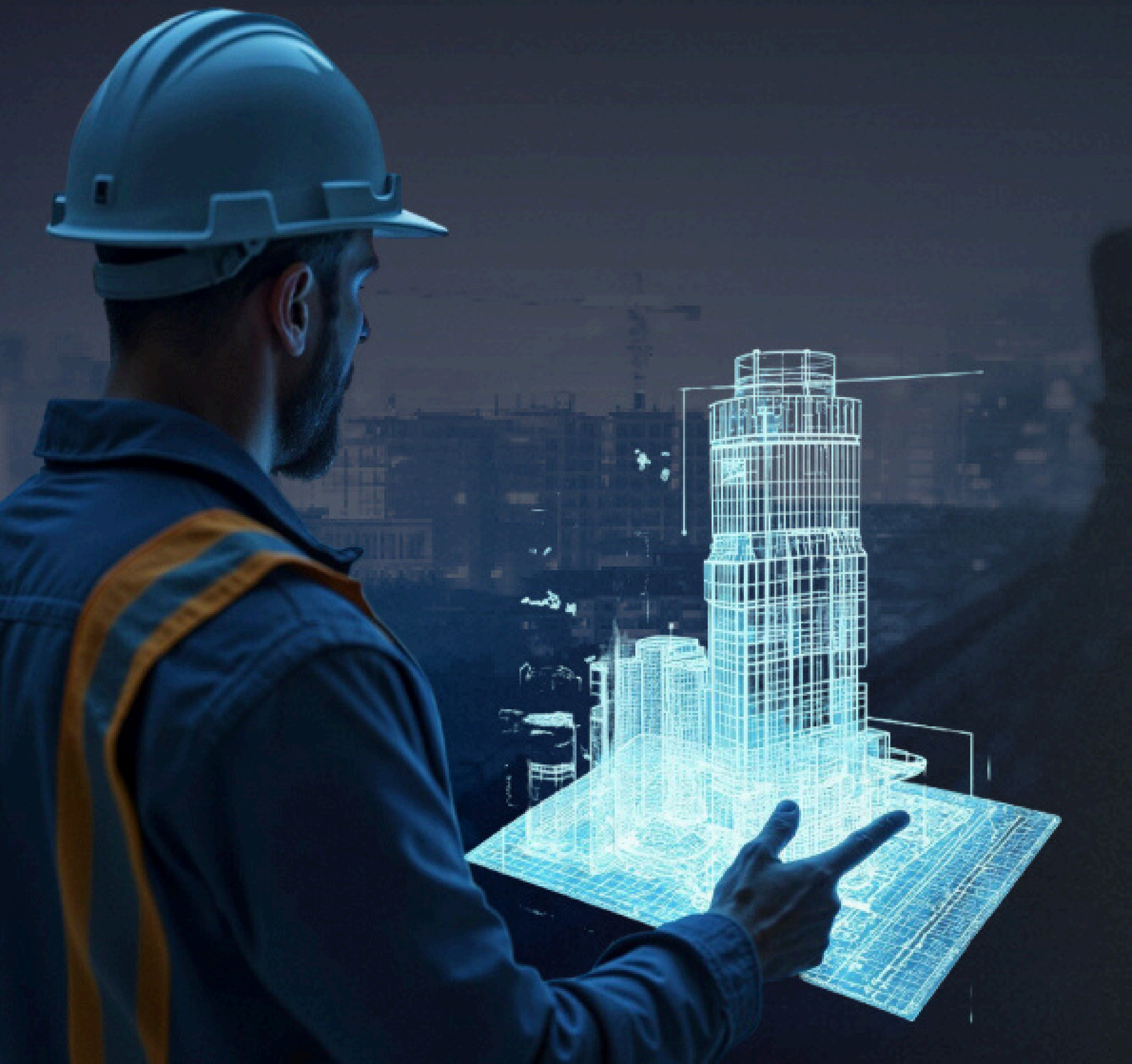
AICERTs®

AI+ Mining

Certification



Executive Summary

The AI+ Mining course explores how artificial intelligence is transforming the mining industry. It covers AI fundamentals, machine learning, and deep learning applications in exploration, operations, predictive maintenance, and workforce development. The course emphasizes ethical AI, regulatory compliance, and AI-powered AR/VR training for workforce upskilling. It also highlights strategic decision-making, risk management, and supply chain optimization. Real-world case studies from leaders like Vale and Anglo-American illustrate practical AI benefits. This course prepares mining professionals to harness AI for safer, more efficient, and sustainable mining operations in today's competitive landscape.

AI CERTs™

AI+ Real Estate
Exam Blueprint

Date Issued: 1/06/2025
Version: 1.1

Prerequisites

- **Basic understanding of mining industry operations and terminology**
- **Familiarity with fundamental concepts of data analytics and statistics**
- **No prior coding experience required (coding templates provided)**
- **Prior exposure to GIS, geospatial data, or industrial automation is a plus but not mandatory**
- **Recommended: Prior exposure to GIS, geospatial data, or industrial automation is a plus but not mandatory**

AI CERTs™

AI+ Mining
Exam Blueprint

Date Issued: 1/06/2025
Version: 1.1

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
Introduction to AI in Mining	9%
Machine Learning & Deep Learning for Mining	13%
AI in Mineral Exploration & Resource Modeling	13%
AI for Equipment Automation & Fleet Optimization	13%
AI in Predictive Maintenance & Asset Management	13%
AI for Environmental Compliance & Sustainability	13%
AI for Workforce Transformation & Ethical AI	13%
AI in Mining Strategy & Implementation	13%
	100%

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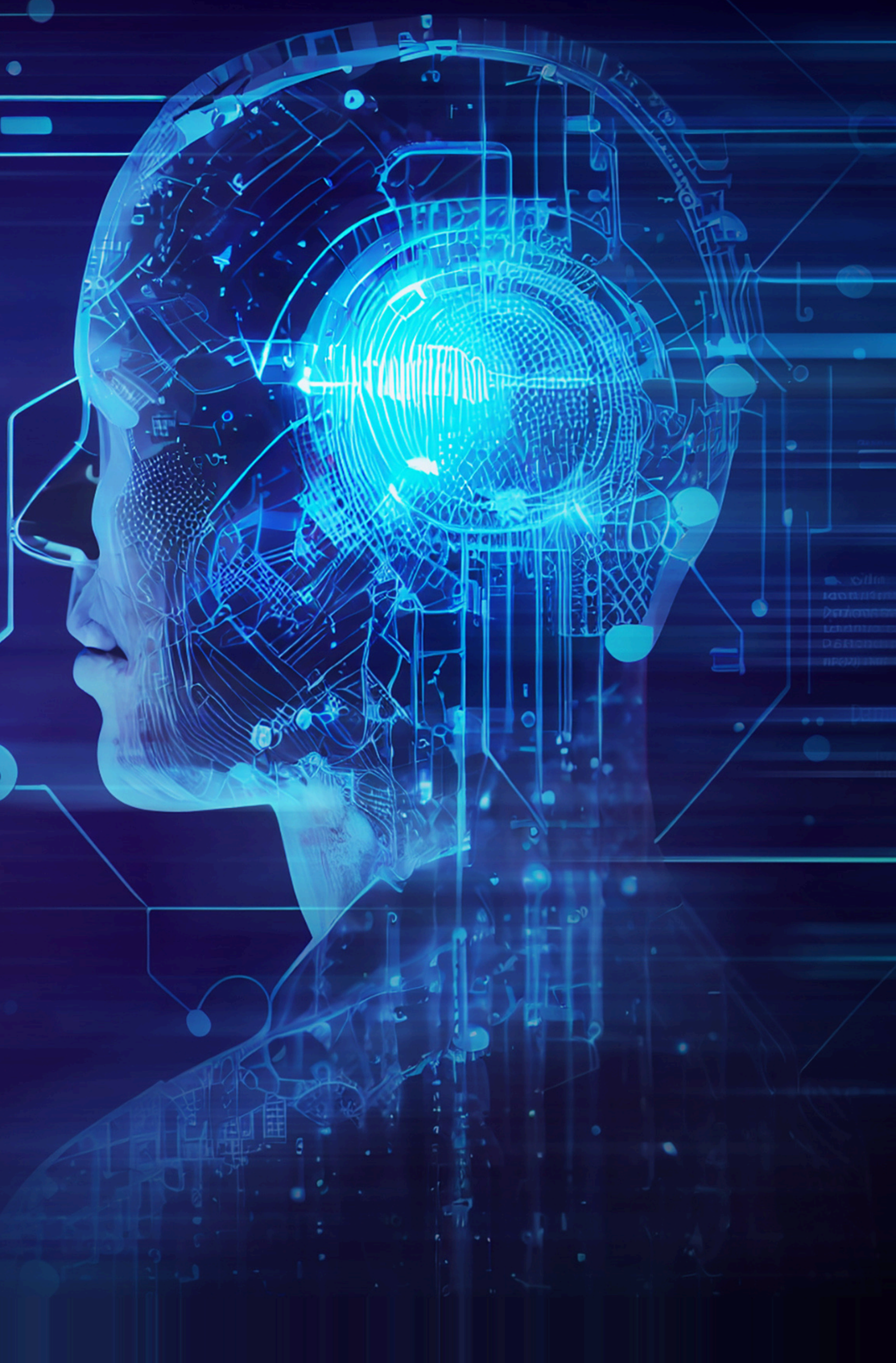
AI+ Mining™



Certification Modules

Module 1

Introduction to AI in Mining

1.1 Overview of AI, ML & Deep Learning in Mining

1.2 Use Cases

1.3 Activity

Module 2

Machine Learning & Deep Learning for Mining

2.1 Introduction to ML & Deep Learning

2.2 Use Cases

2.3 Case Study

2.4 Hands-On Exercise

2.5 Activity

Module 3

AI in Mineral Exploration & Resource Modeling

3.1 AI for Smart Exploration & Orebody Modeling

3.2 Use-Cases

3.3 Hands-On Exercises

3.4 Activity

3.5 Case Study

Module 4

AI for Equipment Automation & Fleet Optimization

4.1 AI in Autonomous Vehicles & Robotics

4.2 Use Cases

4.3 Case Study

4.4 Hands-On Exercise

4.5 Activity

Module 5

AI in Predictive Maintenance & Asset Management

5.1 AI in Equipment Health Monitoring

5.2 Use Cases

5.3 Case Study

5.4 Hands-On Exercise

5.6 Activity: Group Discussion - "Should AI Decide When Machines Need Maintenance?"

Module 6

AI for Environmental Compliance & Sustainability

6.1 AI-Powered Environmental Monitoring

6.2 Use Cases

6.3 Case Study: AI-Driven Sustainability at Rio Tinto

6.4 Hands-On Exercises: AI for Environmental Risk Assessment – Simulating AI-driven Water Quality Monitoring using Google Earth Engine

6.5 Activity: Group Exercise: "Develop an AI-driven sustainability plan for a mining company."

Module 7

AI for Workforce Transformation & Ethical AI

7.1 Ethical AI, Workforce Augmentation & AI Regulations

7.2 Use Cases

7.3 Case Study

7.4 Hands-On Exercises

Module 8

AI in Mining Strategy & Implementation

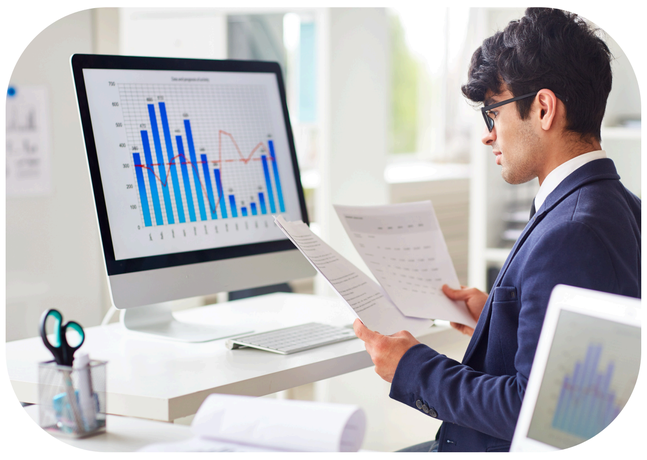
8.1 AI-Driven Decision-Making in Mining

8.2 Use Cases

8.3 Case Study

Certification Outcome

The AI+ Mining course explores how artificial intelligence is transforming the mining industry. It covers AI fundamentals, machine learning, and deep learning applications in exploration, operations, predictive maintenance, and workforce development. The course emphasizes ethical AI, regulatory compliance, and AI-powered AR/VR training for workforce upskilling. It also highlights strategic decision-making, risk management, and supply chain optimization. Real-world case studies from leaders like Vale and Anglo-American illustrate practical AI benefits. This course prepares mining professionals to harness AI for safer, more efficient, and sustainable mining operations in today's competitive landscape.



Market Insight

AI is reshaping the mining industry by optimizing operations, improving safety, and enhancing resource management. This course equips learners with essential AI skills for mining applications, giving professionals a competitive edge in the AI-driven market.

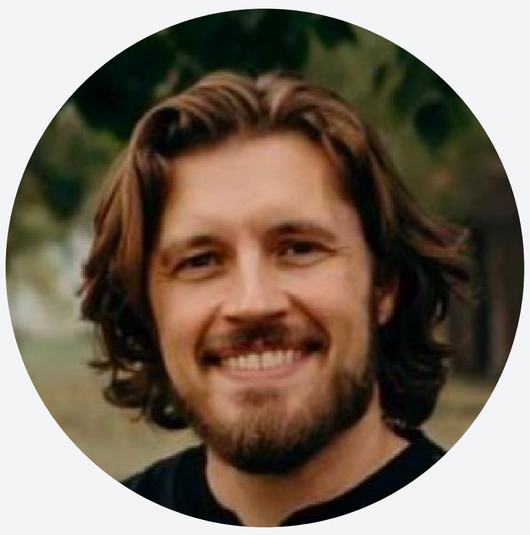
Value Proposition

This course provides essential AI skills tailored for the mining industry, focusing on predictive maintenance, data analysis, and process optimization. With hands-on learning and real-world applications, it prepares professionals to drive innovation and efficiency, giving them a competitive advantage in the evolving AI-driven mining sector.

Additional Features

This course offers industry-specific insights into AI applications in mining, including practical exercises and expert-led sessions. With flexible, self-paced learning and a recognized certification, it equips you with valuable AI skills to enhance your career and connect with professionals in the sector.

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)

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AI & BITCOIN CERTIFICATIONS!

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