HCIA-AI v3.5 Certification Training

Course Objectives

Upon successful completion of this course, the student should be able to:

- Master the concepts, major schools, development history, hot fields, case scenarios, disputes, controversies and future of Artificial Intelligence.
- Understand Huawei's development strategy in the AI.
- Master the theoretical foundation of traditional machine learning.
- To solve AI tasks, master the process from data acquisition, processing, model building, to result output and evaluation.
- Understand the basics of image, speech, and word processing and model building in deep learning.
- Be familiar with the MindSpore framework, master development methods to implement simple applications.
- Understand Huawei Ascend computing platform and products, Huawei cloud EI platform and services, Huawei device AI platform.
- Understand cutting-edge AI applications, such as reinforcement learning, generated adversarial network, knowledge graph, automatic smart driving, quantum computing and machine learning

Introduction

- This course matches the HCIA-AI V3.5 (Released on January 9, 2023).
- After this course you will systematically understand and grasp Machine Learning, Deep learning, Basic AI concepts, basic programming methods using MindSpore and TensorFlow, pre-knowledge, Huawei Ascend AI Chips (Ascend 910 and 310), Huawei HiAI Platform and Huawei cloud EI.

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Day	Date	Time	Topic
1	TBA	AM & PM	1. AI Overview, Python Setup, Python Programming Basics, Hands-on exercise (**Python Basics Practice Lab**)
2	TBA		2. Machine Learning Overview, Machine Learning Experiment Guide, Hands-on exercise (**ML Practice Lab**) **3.** ML types, ML process, ML algorithms
3	TBA		4. Deep Learning Overview, Hands-on exercise (**DL Practice Lab**) **5.** Training rules, activation functions, types of Neural Functions
4	TBA		6. AI Development Framework, MindSpore Foundations (**MindSpore Practice Lab**) 7. Introduction to Huawei AI Platform, ModelArts Experiment Guide, Hands-on exercise (**ModelArts Practice Lab**) 8. Huawei Ascend Computing Platform, Huawei Cloud EI Platform, Huawei Cloud AI Development Platform ModelArts
5	TBA		9. Cutting-edge AI Applications 10 Reinforcement Learning, Generative Adversarial Network (GAN), Knowledge Graph, Intelligent Driving

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Day	Date	Time	Topic
6	TBA	1.5 Hours	Mock Exam
7	TBA	1.5 Hours	Certification Exam HCIA-AI v3.5 (Pearson VUE Exam Centers)

Python 3.7 or higher	TensorFlow 2.X
Pip 9.0.1 or higher	Matplotlib / seaborn
Anaconda	Scikit-learn
NumPy	MindSpore
Pandas	scikit-image

HCIA-AI v3.5 Certification Training

Teaching Methodology

- Online lectures, tutorials, practical computer experiment classes and guided self-study

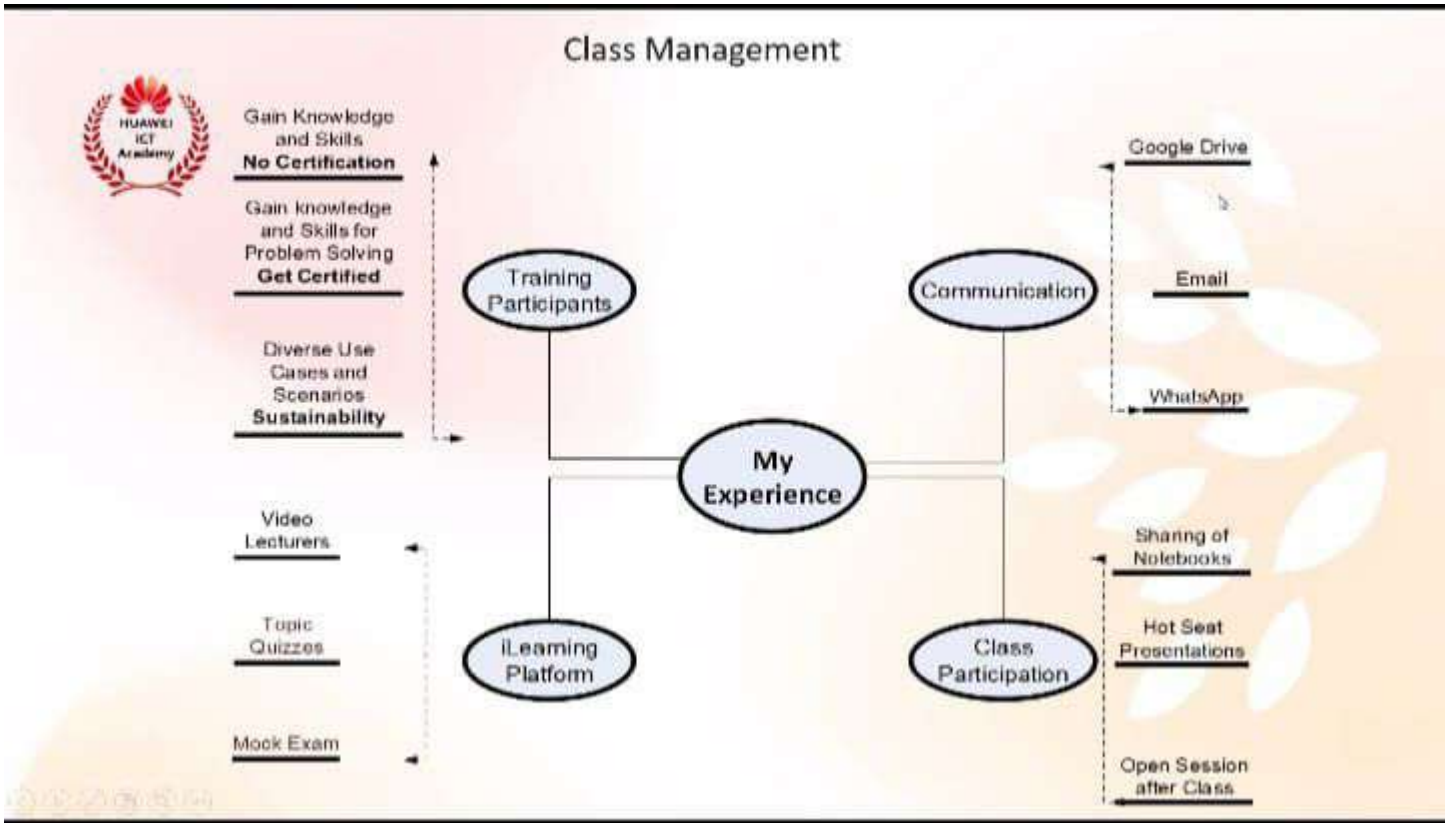
Target Trainees

- Personnel who hope to become AI engineers.
- Personnel who hope to obtain an HCIA-AI certificate.
- Personnel who hope to know how to use, manage, and maintain Huawei AI products and AI services.

Why HCIA-AI Certification

- **Skill Enhancement**: The course provides both foundational knowledge and practical skills and AI technologies
- **Industry Recognition:** Huawei is a prominent technology company with a global presence, thus holding an HCIA-AI certification adds credibility to your AI skillset.
- **Career Advancement:** It distinguishes you in the job market, enhancing your prospects for roles requiring AI expertise e.g. AI/ML engineer, Data Scientist, AI Research Scientist, AI Ethics Officer, etc.

Class Management



Tips and tricks to sit and pass the exam

- **Study exam objectives**: The HCIA-AI exam covers various topics related to AI overview, Machine Learning, Deep Learning etc. Understand the exam objectives, exam format, exam time and study the relevant topics.
- **Study materials:** Huawei provides official study materials, training videos or online training courses that cover the exam topics in detail. You can use these materials to prepare for the exam, and refer to knowledge resources on the Internet and relevant books for supplementation.
- **Hands-on experiments:** Huawei certification exams focus on practical operational skills, so you need to practice and practice
- **Take practice exams and topical quizzes**: Practice exams and quizzes can improve familiarity with the exam format and content, help candidates identify their weak points, and make up for and review them in a timely manner, take the quiz after every topic.
- **Join a study group**: Joining a study group can help you learn from others and get support when you need it.
- **Find the right study method**: Different people have different study methods and habits, find a suitable study method for yourself, such as reading, practicing, listening to lectures and participating in group discussions.
- **Take the exam**: When you feel confident and prepared, schedule your exam and take it at a Huawei testing center.
    - Remember to stay focused, manage your time well during the exam, and answer all questions to the best of your ability.