



A4AIG003W

(Token- required)

Artificial Intelligence (Level IV)

AI models Training Camp: AWS DeepRacer

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Application Deadline
23 Jun 2022 12:00 n.n

Result Release
24 Jun 2022

Intended Learning Outcomes

Upon completion of the programme, participants should be able to:

1. Define reinforcement learning , supervised learning and unsupervised learning
2. Understand the concepts and procedure of at least one learning platform or learning kit
3. Train at least one AI model and to deploy it on the Edge device
4. Collaborate with peers to participate internal competition



◆ Introduction and Schedule

In Reinforcement learning: AWS DeepRacer (A4AIG003W), students will be using the online 3D racing simulator provided by AWS Cloud platform to train the reinforcement learning AI models to drive a 1/18th race car. Students will have to continuously compile and modify the reward function based on the performance and results of each race to let the self-driving race car successfully complete the track at high speed.

Reinforcement learning: AWS DeepRacer (A4AIG003W) (Apply)			
Session	Date	Time	Venue
1	30 Jul	0930 – 1230	HKAGE
2	6 Aug		
3	23 Aug		

Other than A4AIG003W, HKAGE is launching two other AI module training workshops - NVIDIA Jetbot Nano learning (A4AIG001W) and GAN & DeepFake (A4AIG002W). If you are interested in the AI and big data analysis, you are welcome to apply.

In NVIDIA Jetbot nano learning (A4AIG001W), students could experience data collection, labelling, training model and model deployment. Students are required to train three models, which are avoid obstacles, road following and combined model for building an autonomous car. Click [here](#) to view the details.

The Unsupervised learning:: GAN & DeepFake (A4AIG002W) will cover the theory and practice of creating deepfakes: videos in which faces have been swapped using Generative adversarial network. Through this workshop, students know not only how to train the deepfake model, but also how to detect fake videos through AI. As well as learning about AI basics and ethics. (Application Closed)

◆ Target Participants

- S1 – S6 HKAGE student members
- Class size: 30 for each workshop
- Priority will be given to student members who have completed A4AIG001C or A4AIG002C or A4AIG003C
- First-come, first-served basis

◆ Medium of Instruction

Cantonese with Chinese or English Handouts

◆ Pre-requisite

Students should be able to:

- have a basic understanding of Python programming language

◆ Certificate

E-Certificate will be awarded to participants who have:

- Attended ALL 3 sessions; AND
- Completed all the assignments with satisfactory performance