4 ,10 & 17 Oct 2024 (3 days)

Metaverse and NFT Production with Unreal Engine

RITTP code: CA/2/2023(RT) Course Code: MUE7101

Turn Your Metaverse Dreams into Reality
Join Our Workshop to Master Photogrammetry and Unreal Engine

Introduction

Web3.0, often known as the decentralized web, is a dynamic concept aimed at transforming the internet through the integration of decentralized technologies and applications. Its emergence has opened up exciting possibilities for commercial applications, particularly within the metaverse and Non-Fungible Token (NFT) industries. These applications span a broad spectrum, encompassing virtual commerce, virtual events, digital art and collectibles, virtual assets, and much more.

Program Objective

The aim of this workshop is to equip beginners with the knowledge and skills required to create their own metaverse and NFTs using photogrammetry and Unreal Engine 5. By acquiring the ability to merge their creations, participants will leverage their newfound skills for various purposes, including training, marketing, promotion, advertising, and beyond.

After the workshop, participants will be able to

1. Employ techniques such as photogrammetry to create accurate representations.
2. Navigate Unreal Engine and utilize its features to bring their creations to life within the metaverse.
3. Design and construct the metaverse, utilizing the concepts and tools to build immersive virtual environments.
4. Tokenize NFTs and leverage Web3.0 to authenticate and trade these unique digital items.
5. Utilize their creations for a range of business processes.

Deky Leung
Technology Trainer and
Business Founder

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Enquiry and Registration

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本課程已被列入
新型工業化及科技培訓計劃下的登記公開課程
Course Fee: HK$ 18,600 (3 days) or
around HK$6,200 (after subsidy)

Target Participants

- Beginners in the field who intend to kickstart their journey in these emerging fields.
- Digital artists and creators who wish to showcase and monetize their digital art and collectibles through NFTs.
- Entrepreneurs wanting to leverage these technologies for marketing and explore innovative ways to engage customers.
- Technology enthusiasts with a keen interest in blockchain, and decentralized applications.
- Professionals seeking to upskill such as design, training, and gaming.

Day 1: Photogrammetry Basics and 3D Object Capture

Introduction to Photogrammetry:

- Concept photogrammetry and its applications in creating 3D models.
- Applying photogrammetry, such as architecture, gaming, and virtual reality.

Image Capturing Tools and Techniques:

- Types of images capturing tools, including digital cameras, drones, and mobile devices.
- Camera settings for optimal photogrammetry results.

Photogrammetry Software:

- Introduce popular photogrammetry software options such as RealityCapture.
- Process of importing captured images into the software and generating 3D models.
- Basic functionalities, such as alignment, point cloud generation, and mesh reconstruction.

Hands-on Practice:

- Step-by-step instructions to process the captured images and generate 3D models.

Day 2: Unreal Engine 5 Basics

Unreal Engine Interface:

- Introduction to the Unreal Engine interface, including the main editor, content browser, and viewport.
- The functionality of panels, windows, and menus.
- Accessing various tools and features.

Fundamental Concepts:

- Key concepts such as actors, levels, and assets in Unreal Engine.
- The essence of asset management and organization for efficient workflow.
- Overview of scene setup, including placing objects, adjusting scale, and working with transformations.

Materials and Lighting:

- Materials list in creating realistic 3D objects or scenes.
- Creating and applying materials to objects using the material editor.
- Lighting techniques, including directional lights, point lights, and ambient occlusion, to enhance the visual quality of the scene.

Day 3: Integrating 3D Objects with Unreal Engine

Importing Photogrammetry-generated 3D Models:

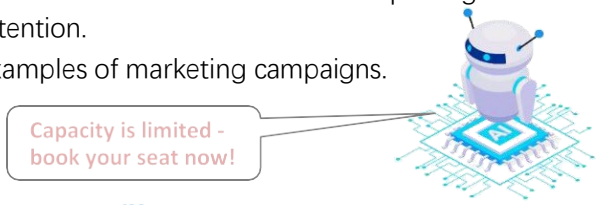
- The process of importing 3D models generated from photogrammetry software into Unreal Engine.
- The file formats supported by Unreal Engine, such as FBX and OBJ.
- Best practices for optimizing the imported models, including LODs, collision meshes, and UV mapping.

Training and Education:

- How the created assets can be utilized for training and educational purposes.
- Scenarios where virtual training environments can provide realistic simulations and enhance learning outcomes.
- Examples of educational applications and projects created using Unreal Engine and photogrammetry.

Marketing and Promotion:

- Potential of using the created assets for marketing, promotion, and advertising campaigns.
- Highlighting the advantages of photorealistic 3D models and environments in capturing audience attention.
- Examples of marketing campaigns.



Trainer Profile

Mr. Deky Leung is an exceptional entrepreneur and talented producer, possessing a unique blend of expertise in event management, interior design, and Unreal Engine development. In 2019, he founded Cube Present Limited, an innovative company that quickly gained recognition as an incubatee of the prestigious Hong Kong Design Incubation program. One of Deky's notable achievements was his pivotal role in collaborating with the Tai Cheung Group on the Pulsa 108 project. This groundbreaking collaboration led to the development of a fully immersive experience using Unreal Engine, pushing the limits of architectural visualization. In 2023, Cube Present further cemented its reputation by receiving an invitation to exhibit at Design Fair Asia 2023 in Singapore. This esteemed event offered an exceptional platform for Cube Present to showcase their latest solutions using Unreal Engine.

Deky's dedication to his craft is evident through his successful track record of organizing workshops and training sessions. Through these initiatives, he shares his knowledge and empowers participants to leverage Unreal Engine's capabilities to bring their creative visions to life. Presently, Deky is a tutor at HKU SPACE, taking charge of the course for architectural visualization, and he has been awarded as a listed contractor for Swire Properties Group.

Particulars:

- The training course is developed for the New Industrialization and Technology Training Programme (NITTP).
- For details about NITTP, please visit the website: https://nittp.vtc.edu.hk/.
- **Program Dates** are scheduled on 4, 10, 17 October 2024, from 09:15 to 17:15.
- **The venue** is Room 603 Dominion Centre, 43-59 Queen's Road East, Wanchai, Hong Kong.

Course Requirements:

- It is expected that participants possess **basic PC skills** and may need to **utilize their own notebooks** during practical exercises, if required.
- It may or may not be necessary to install software prior to the lesson. A limited number of notebooks can be provided in class upon request.
- The sessions are purposely made to provide opportunities for participants to rehearse the learnt skills.
- The course is **delivered in Cantonese**, while the training and presentation materials are provided in English.

Enrolment Details:

- 5% early bird discount is offered for enrollment before 31 July 2024
- To register the course, please fill in and return the attached enrolment form on or before 16 August 2024 and apply for NITTP training grant 6 weeks before the course commencement.
- Copies of the latest version of the NITTP training grant application forms can be obtained from the Secretariat or downloaded from the website of the NITTP.

Computer Academy

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ENROLMENT FORM

Name (Mr./Ms./Mrs.) .....

HKID Card No. .....Age (CEF applicant only).....

Title .....

Company .....

Address .....

Telephone No. ..... (office) ..... (home) ..... (mobile)

Fax No. ..... E-mail .....

Code	Course name	Date	Fee
		Total HK$	

Cheque should be crossed and made payable to "**Computer Academy**".

Company sponsored: ❑ Yes ❑ No

Do you possess the basic computer operation skills (e.g open and save files, manage document windows and mouse control) ?

❑ Yes ❑ No

How do you know our company?

❑ Advertisement ❑ Friends ❑ Our mailing ❑ Internet/E-mail

❑ Other _____

Signature & Chop: ..... Date: .....

- Registration must be made on the **Enrolment Form** provided and returned to Computer Academy with school fee.
- Acceptance is subject to the discreton of Computer Academy.
- Applicants will be notified by telephone to confirm receipt of the application form and full programme fee.
- When a programme is over-subscribed, additional classes may be started in some cases. Applicants may then be notified of the new schedule.
- Telephone or fax reservations are welcome but are subject to confirmation by payment in full within 5 days of the date the reservation is made or 7 days prior to programme commencement, whichever is sooner.
- Applications with payment will be processed on a first-come first-served basis.
- Computer Academy reserves the right to make alterations regarding the details.
- Personal data will be used for the purposes of market research, programme development and direct mailing.