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(Token- required)

**Data Science Workshop (Level II)**

# Unlocking Data Secrets with Python and Learning STEM in Metaverse

Prof Yu Leung Ho Philip and other instructors

Department of Mathematics and Information Technology

The Education University of Hong Kong

**Application Deadline**

**24 Apr 2023**

**12:00 noon**

## **Intended Learning Outcomes**

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

1. explain the popular data visualization and modeling techniques;
2. apply the data visualization and modelling techniques in learning STEM;
3. write simple programs with Python coding;
4. raise awareness of the virtual reality (VR) applications in Metaverse & STEM education;
5. discuss ethical issues in data science exploration and application.



## ◆ Introduction

“Data is a precious thing and will last longer than the systems themselves.”  
– Tim Berners-Lee, inventor of the World Wide Web

“Without big data analytics, companies are blind and deaf, wandering out onto the web like deer on a freeway.”

– Geoffrey Moore, an American organizational theorist, management consultant and author

In these series of workshops, offered by HKAGE in collaboration with The Education University of Hong Kong (EdUHK), you will learn about data mining techniques and their applications in STEM Education together with virtual reality (VR) platforms. You will be taken on the step-by-step journey of the data mining process by a series of hands-on activities designed by the postgraduate students of Master of Science in Artificial Intelligence and Educational Technology (MSc(AI&EdTech)) under the guidance of Prof Yu Leung Ho, Philip (Head of department) and Dr. Singh Manpreet (Lecturer) of the Department of Mathematics and Information Technology (MIT) of EdUHK.

The first two sessions will introduce popular data visualization and basic modeling techniques with hands-on python practices. The third session will be dedicated to the use of virtual reality platforms (Metaverse) for doing STEM activities related to data mining accompanied by a visit to EdUHK’s Virtual Reality lab (Venue to be confirmed).

## ◆ Schedule

Session	Date	Time	Venue
1	6 May 2023		D3-LP-03 (Block D3, LP)
2	13 May 2023	2:00 p.m. – 5:00 p.m.	The Education University of Hong Kong
3	20 May 2023		<a href="#">(Location)</a>

## ◆ Target Participants

- S1 – S6 HKAGE student members in 2022/23 school year only
  - Class size: 30
- \* First-come-first-served.

## ◆ Pre-requisite

Basic programming skill is preferable.

## ◆ Medium of Instruction

Cantonese/English with English handouts

## ◆ Certificate

E-Certificate will be awarded to participants who have:

- attended ALL sessions; AND
- completed all the assignments with satisfactory performance