

# Virtual Entrepreneurship and Digital Economy with AI in HKU Campusland Metaverse Innovation Competition

Organised by the  
HKU SAAS Data Science Lab

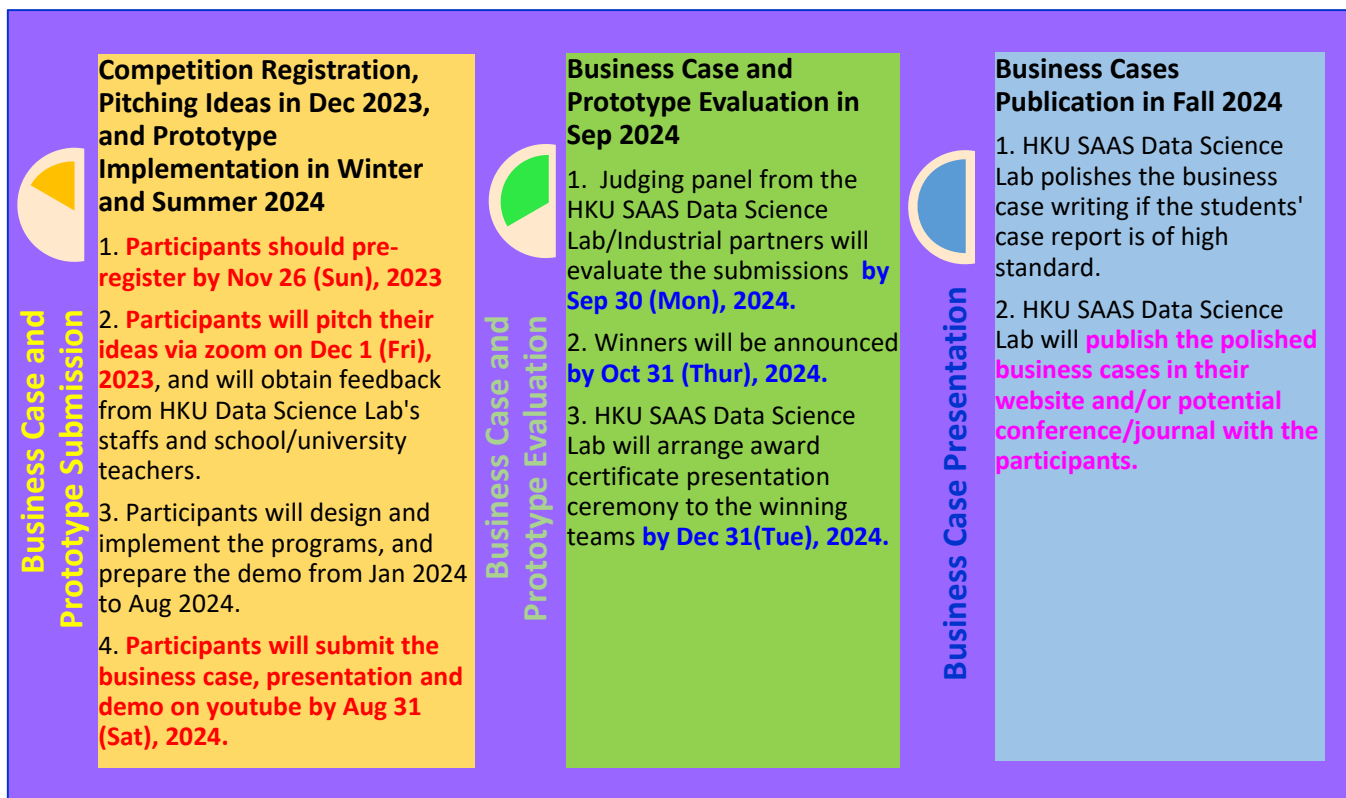
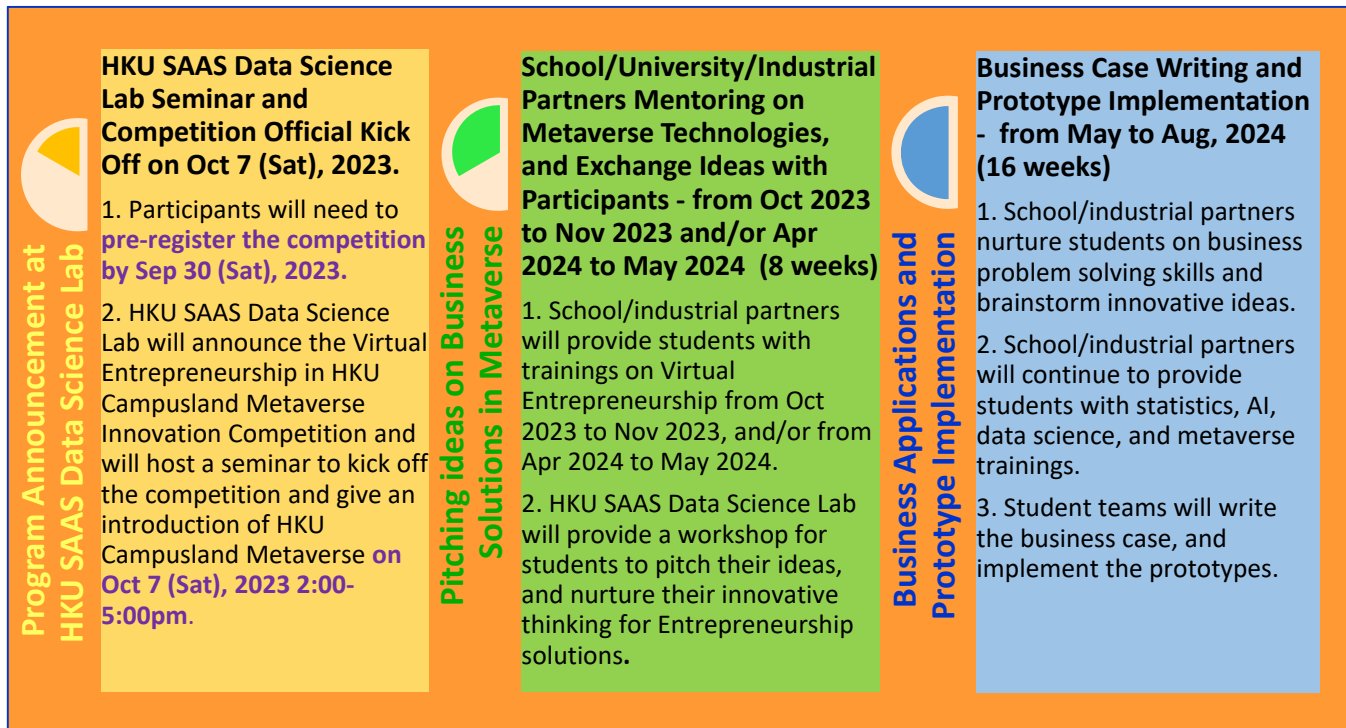


HKU SAAS Data Science Lab of the Department of Statistics & Actuarial Science (<https://saasweb.hku.hk/datasci>), The University of Hong Kong is organizing a Virtual Entrepreneurship in HKU Campusland Metaverse Innovation Competition for secondary school/undergraduate/graduated students, and companies (<https://saasweb.hku.hk/datasci/competitions.php>). HKU Campusland in Metaverse has already been implemented since 2022 with some AI tools such as AI chatbot, social media analytics, video analytics and mixed reality. The current users of HKU Campusland include HKU students and students of 10 secondary schools, and the upcoming target users are HKU alumni, communities, and companies. The aim of this competition is to promote innovation and digital economy in Hong Kong and worldwide. Participants can use our existing AI Chatbot, social media analytics, video analytics, and mixed analytics tools to develop your virtual entrepreneurship and digital economy with AI in the Enterprise Building of HKU Campusland. A short course of virtual entrepreneurship is available for participants with a small individual or institutional fee to nurture entrepreneurship theories and methods in HKU Campusland metaverse environment, and to provide hands-on experience to develop a virtual entrepreneurship for this competition. This competition encourages students and companies to develop new business idea in metaverse for driving next century's metaverse business experience for companies, and shopping experience for metaverse shoppers, which aims to boost up the innovative digital economy in Hong Kong and worldwide to echo HKSAR Government's Digital Economy Development in 2022. The competition also serves as a platform for local secondary schools, institutions, and industries to share knowledge, innovation and experience on the application of AI and mixed reality technologies in metaverse for social science, smart city, healthcare, education, and Internet of Things (IoT)'s business.

<b>Program Overview</b>	<p><b>Virtual Entrepreneurship and Digital Economy with AI in HKU Campusland Metaverse Innovation Competition</b></p> <ul style="list-style-type: none"> <li>• A Virtual Entrepreneurship in HKU Campusland Metaverse Innovation Competition is organized by HKU SAAS Data Science Lab, targeting at secondary school/university students, and the industry.</li> <li>• The competition is sponsored by a list of industrial partners that was stated in the competition website.</li> <li>• The HKU SAAS Data Science Lab provides current business problems/challenges for students and companies to solve and discover business innovation using metaverse technologies, statistics, AI and data science for creating digital economy. Students and companies will give a presentation to the judging panel on how they would solve the problem by innovative metaverse business application.</li> <li>• The participants' school/university teachers, and industrial partners will provide mentoring on innovation creation, techniques and skills of solving business problems.</li> <li>• The HKU SAAS Data Science Lab will nurture students and companies on innovation development, business insights creation, and entrepreneurship.</li> <li>• The winning team will gain a prize and/or an award certificate.</li> </ul>
<b>Objective</b>	<ul style="list-style-type: none"> <li>• Identify talented students in the field of statistics, AI, data science, and metaverse.</li> <li>• Resolve current robotics vision and automation problems, and create insights for various fields such as social science, smart city, healthcare, education, and Internet of Things (IoT).</li> <li>• Generate new ideas and innovations using statistics, AI, data science, metaverse technologies to increase business competitiveness.</li> <li>• Have practical hands-on experience in statistics, AI, data science, metaverse technologies.</li> <li>• Take social responsibility to nurture students and companies on applying statistics, AI, data science, metaverse technologies to solve business problems by innovative entrepreneurial skills.</li> </ul>
<b>Business Benefit</b>	<p><b>Students and Companies</b></p> <ul style="list-style-type: none"> <li>• Know your talents/company strengths and learn the skills for solving a business problem with statistics, AI, data science, and/or metaverse technologies.</li> <li>• Apply theories and concepts into real practices.</li> <li>• Have hands-on experience on virtual entrepreneurship in metaverse environment.</li> <li>• Extend your social, school, and industrial networks and learn entrepreneurship's thinking processes.</li> <li>• Gain award certificates opportunities.</li> </ul> <p><b>The University of Hong Kong</b></p> <ul style="list-style-type: none"> <li>• Nurture students and companies with business problems and innovation development.</li> <li>• Promote applied statistics, AI, data science and metaverse technologies in business applications.</li> <li>• Take social responsibility to nurture students and companies on innovation development and entrepreneurship.</li> </ul> <p><b>High School, university teachers and industrial partners</b></p> <ul style="list-style-type: none"> <li>• Nurture students and companies to apply statistical, AI, data science, and/or metaverse methods on business problems.</li> </ul>

## Timeline

### 1. School/University/Industrial Partners' Timeline



## 2. Participants' (Students and Companies) Timeline

### The Problems (choose one or more)

	<b>Category</b>
1	<b><u>Finance in Metaverse</u></b> <ul style="list-style-type: none"><li>• Use statistics, AI, data science, and metaverse technologies to improve the banking and financial services, e.g. customer services, chatbot, surveillance, business monitoring, accounting and auditing, etc.</li></ul>
2	<b><u>Healthcare in Metaverse</u></b> <ul style="list-style-type: none"><li>• Use statistics, AI, data science, and metaverse technologies to improve the healthcare business (e.g. personal health, social distancing monitor, disease screening and diagnostics, therapy operations, etc).</li><li>• Use statistics, AI, data science, and metaverse technologies to enable patients (or their carers) to track and modify lifestyle attributes critical in the prevention and early interception of potentially more serious health conditions.</li><li>• Use statistics, AI, data science, and metaverse technologies to enable consumers to easily detect their own (or those in their care) health conditions, to aid in the timely and appropriate preventative or treatment intervention.</li></ul>
3	<b><u>Smart City in Metaverse</u></b> <ul style="list-style-type: none"><li>• Use statistics, AI, data science, and metaverse technologies to help retail business, shopping malls, building management, etc., (e.g. better customer services, minimize payment counter queueing, energy saving and security surveillance for building management, etc) to improve customer service and/or product offerings.</li><li>• Use statistics, AI, data science, and metaverse technologies to optimize buildings' operational efficiency and occupants' experience through an integrated solution in order to achieve increase efficiency, resiliency, sustainability, comfort and safety.</li></ul>
4	<b><u>Social Science in Metaverse</u></b> <p>Use statistics, AI, data science, and metaverse technologies to resolve and improve some current social issues (e.g. traffic congestion, pollutions vs conservation, elderly living conditions, etc).</p>
5	<b><u>Education in Metaverse</u></b> <p>Use statistics, AI, data science, and metaverse technologies in STEM Education to accelerate school/university students' learning or company staffs' trainings.</p>
6	<b><u>Internet of Things (IoT) in Metaverse</u></b> <p>Use statistics, AI, data science, and metaverse technologies to improve the intelligence of smart home solutions, or others, through sensing technologies.</p>

### **Hardware and Software commonly used in AI, IoT and school STEM projects**

*(Participants are not limited to use the following robot simulator or robots for programming)*

<b>Software</b> <ol style="list-style-type: none"><li>1. Roblox <a href="https://www.roblox.com/home">https://www.roblox.com/home</a><ul style="list-style-type: none"><li>• Create avatar in the HKU Campusland metaverse</li></ul></li><li>2. Introduction to Roblox Studio <a href="https://create.roblox.com/docs/tutorials/scripting/basic-scripting/intro-to-scripting">https://create.roblox.com/docs/tutorials/scripting/basic-scripting/intro-to-scripting</a><ul style="list-style-type: none"><li>• Build the content in the HKU Campusland metaverse</li></ul></li><li>3. Python <a href="https://www.python.org/">https://www.python.org/</a><ul style="list-style-type: none"><li>• Take time to learn and need mature coding skill</li><li>• Rich opensource libraries and frameworks available freely for AI development</li><li>• The most popular programming language for AI development</li></ul></li></ol>
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## Scoring Criteria

Scoring Criteria			
1	<b>Solution to problem</b>	<ul style="list-style-type: none"> <li>How well the evaluation and reviews of the current potential solutions are discussed? (Knowledgeable)</li> <li>How well does the solution resolve the problem? (Problem Solving Skill)</li> <li>How relevant is the solution to the problem? (Critical Thinking)</li> <li>What value can the solution add? (Business Insights)</li> </ul>	<b>20%</b>
2	<b>Innovation</b>	<ul style="list-style-type: none"> <li>How innovative is the solution? (Innovation)</li> <li>Any companies in the market have provided similar solutions? (Knowledgeable)</li> <li>Traditional approach versus non-traditional approach? (Critical Thinking)</li> <li>Has the solution applied any latest technologies in statistics, AI, data science, and/or metaverse? (Knowledgeable)</li> </ul>	<b>20%</b>
3	<b>Commercialization</b>	<ul style="list-style-type: none"> <li>Can the solution be commercialized practically (cost, timeline)? (Global Outlook)</li> <li>How much commercial value can the solution bring (revenue)? (Business Insight)</li> </ul>	<b>20%</b>
4	<b>Design and Features</b>	<ul style="list-style-type: none"> <li>How well has the solution leveraged the design? (Problem solving)</li> <li>How good is the user experience in the application design? (Problem Solving)</li> </ul>	<b>40%</b>

## Roles & Responsibilities

Roles and Responsibilities	
<b>HKU SAAS Data Science Lab, Department of Statistics and Actuarial Science, The University of Hong Kong (about the competition)</b>	<ul style="list-style-type: none"> <li>Provide mentoring for students and companies on statistics, AI and data science, metaverse programming, and innovative idea.</li> <li>Provide 2 or 3 judges to serve on the judging panel.</li> <li>Set up website for program competition and registration.</li> <li>Print the award certificates.</li> <li>Provide award certificates for winners.</li> <li>Manage marketing and publications if any.</li> </ul>
<b>Teachers in high schools/universities/ industrial partners (sponsors/supporting organisations)</b>	<ul style="list-style-type: none"> <li>Recommend statistics, AI, data science, and metaverse development software to students or companies if known.</li> <li>Provide technical trainings and consultations to students or companies if available.</li> <li>Student or company recruitment and internal communications.</li> <li>Market the competition event in campus, the company, or the association.</li> <li>Provide souvenirs and/or company problems for the competition if any.</li> <li>Manage marketing and publications if any.</li> </ul>

## Prizes

Prizes	
<b>First prize</b>	<ul style="list-style-type: none"> <li>Souvenir</li> <li>Innovation and Business Insight Award Certificates</li> </ul>
<b>Second prize</b>	<ul style="list-style-type: none"> <li>Souvenir</li> <li>Global Outlook and Critical Thinker Award Certificates</li> </ul>
<b>Third prize</b>	<ul style="list-style-type: none"> <li>Souvenir</li> <li>Knowledgeable Award Certificates</li> </ul>
<b>Best Business Concept</b>	<ul style="list-style-type: none"> <li>Souvenir</li> <li>Problem Solver Award Certificates</li> </ul>
<b>Other groups</b>	Team Spirit and Risk Taker Award Certificates

## Contacts for Enquiry

Contact for Enquiry	
HKU SAAS Data Science Lab, Department of Statistics and Actuarial Science, The University of Hong Kong (about the competition)	Contact Person: Dr Adela Lau Email: <a href="mailto:datasci@hku.hk">datasci@hku.hk</a> Website: <a href="https://saasweb.hku.hk/datasci/competitions.php">https://saasweb.hku.hk/datasci/competitions.php</a>

## List of Sponsors/Supporting Organizations



**StartmeupHK**  
Invest Hong Kong  
[www.startmeup.hk](http://www.startmeup.hk)



**HKSTP**  
<http://www.hkstp.org>



**Cyberport**  
<https://www.cyberport.hk>



**PwC**  
PricewaterhouseCoopers  
<https://www.pwchk.com/>



**MARVEL DIGITAL Ai LIMITED**  
萬維數碼智能有限公司  
**Marvel Digital Ai Limited**  
<http://ai.marveldigital.com/>



**勤思科技**  
**Kinth Technology Ltd**  
<http://www.kinthtechnology.com>



**Vision Real Capital Limited**  
<https://visionrealcapital.com>



**Asia Financial Risk Think Tank**  
亞洲金融風險智庫  
**Asian Financial Risk Think Tank**  
<https://wemp.app/accounts/7c3cc70a-86af-4b8b-bb31-eed271a1281d>



**Association of I.T. Leaders in Education**  
資訊科技教育領袖協會  
**Website :**  
<https://www.aitle.org.hk>



**NVIDIA**  
<https://www.nvidia.com/>



**OneNet (Risk Assessment, Audit, Startups Consultation, Training and Solutions)**  
<https://onenet99.wixsite.com/onenet>



**Academy of Professional Certification**  
<https://apcaudit12.wixsite.com/apcert>



**Power Hub Ltd**  
<https://www.phublogistics.com/>

## Registration Form

Please submit the pre-registration of the competition application by 31<sup>st</sup> Aug 2023 via the link of <https://saasweb.hku.hk/datasci/register/>. If you have questions, please email to Dr Adela Lau at email adelalau@hku.hk. The business case and prototype submission deadlines are on 31<sup>st</sup> Aug 2024.

Requirement of Submission	
<b>Number of Members in Each Team:</b>	2-4 people
<b>Format of Project Report</b>	<p><u>Number of words:</u> The business case writing should have minimum 2000 words (around 5 pages) and not more than 4000 words (around 8 pages).</p> <p><u>Case Writing Format:</u> Chapter 1 Project Background (200-400 words) Chapter 2 Problems (100-200 words) Chapter 3 Current solutions and its limitations and why AI robotics vision and automation technology can solve the problems and limitations (400 – 800 words) Chapter 4 Your proposed solutions (800 – 1600 words) Chapter 5 Conclusions (100 – 200 words) Chapter 6 Future work (400 – 800 words) Chapter 7 References and Acknowledgement (not count as the word count limits)</p> <p><u>Prototype Format:</u> The python program and an AI robotic demonstration in YouTube (set as unlisted)</p>
<b>Pre-registration Deadline</b>	Date: 30 <sup>th</sup> Sep 2023
<b>Webinar on Introduction of HKU Campusland Metaverse</b>	Date: 7 <sup>th</sup> Oct 2023 Venue: Lecture Theatre (TBA) and Zoom
<b>Workshop for students/ companies to pitch idea</b>	Date: 1 <sup>st</sup> Dec 2023 Venue: Zoom (TBA)
<b>Competition Application Deadline</b>	Date: 30 <sup>th</sup> June 2024
<b>Project presentation video record in YouTube (unlisted), and report submission:</b>	Date: 31 <sup>st</sup> Aug 2024 Submission: Email URL to Dr Adela Lau at datasci@hku.hk

## **Terms of Participation**

### **PLEASE READ THESE TERMS OF PARTICIPATION CAREFULLY.**

By participating in the Competition through submitting a Competition entry form, the participant/team shall be deemed to have accepted and agreed to be bounded by all the Terms of Participation set out herein.

1a. The " Virtual Entrepreneurship and Digital Economy with AI in HKU Campusland Metaverse Innovation Competition " ("the Competition") is organized by HKU SAAS Data Science Lab ("the Organizer") and sponsored/supported by a list of industrial partners that was stated in the competition website.

1b. The "solutions" to be submitted are defined as workable prototype, mobile or web applications. All entries should be accompanied by a proposed business concept write up with illustration(s) such as proposed business plan, possible business opportunity, market potential, estimated demand or revenue projection.

2. To enter the Competition, each participant shall submit their entry ("Competition entry" or "Competition entries" respectively) to Dr Adela Lau via email [adelalau@hku.hk](mailto:adelalau@hku.hk). Each Competition entry must be submitted in digital format.

3. Each participant may be a team comprising of up to 2-4 individuals (reference to "Participant" shall be taken to mean the individual submitting an entry or the individuals comprising the team submitting an entry).

### **Competition Period**

4. Competition entry submission begins on 1<sup>st</sup> Sep 2023 at hours EST time and ends on 31<sup>st</sup> Aug 2024. The Organizer reserves the right to extend the deadline of the Competition if required.

### **Eligibility**

5. The Competition is open to all students in secondary school and university, and the companies.

### **Intellectual Property Rights**

6a. Each participating team acknowledges that they are the sole author and owner of all rights, title and interest subsisting in their submitted Competition entries (including intellectual property rights) for the entries submitted.

6b. Each participant warrants that their submitted Competition entry is their original work and idea.

6c. Competition entries that do not fulfil the above criteria will be deemed ineligible and will be disqualified.

### **Publicity**

7a. Each participant consents to the public disclosure of his/her name, photographs, and other details as submitted in the Competition entry form, as the case may be, for administering the Competition and for publicity purposes. Each participant consents to the use of any data provided by such participant for any

future publicity effort by the Organizer or by any third party acting on behalf of the Organizer, without any payment or compensation thereof. Such use includes, but is not limited to the following purposes:

- operating, administering and promoting the Competition;
- displaying the Participant's Competition entry on any media or community space; and
- for the issuing of any media release or media pitches with the Competition entries.

7b. If you refuse any one of the above terms, you need to inform Dr Adela Lau at email [adelalau@hku.hk](mailto:adelalau@hku.hk) by the competition application deadline.

**Social Media integration**

<b>HKU SAAS Data Science Lab</b>	<ul style="list-style-type: none"><li>• HKU Seminar</li><li>• HKU SAAS Data Science website and the leaflet</li><li>• Any social media and HKU's internet platforms used for marketing and promotion purposes</li></ul>
<b>Sponsor/ Supporting Organisations</b>	<ul style="list-style-type: none"><li>• Sponsor/supporting organisation's website</li><li>• Social media</li></ul>