



電子計算系  
DEPARTMENT OF COMPUTING  
香港恒生大學  
THE HANG SENG UNIVERSITY  
OF HONG KONG



# Master of Science in Data Science and Artificial Intelligence (MSC-DSAI) 數據科學及人工智能理學碩士

Cloud technology

Data science

Artificial intelligence

Marketing  
analytics

Big data security  
and privacy

Machine learning

Big data management

2023 現正招生



Some modules have been included in the list of reimbursable courses for CEF purposes

# Master of Science in Data Science and Artificial Intelligence (MSC-DSAI) 數據科學及人工智能 理學碩士

The convergence of Artificial Intelligence (AI) and Big Data technologies is changing the way we make decisions. Disruptive changes can be seen everywhere. In this new and exciting Master Degree programme, students will learn to master the latest technologies in data science and machine learning and their real world applications. The programme is designed for students from a wide range of disciplines with interests in applied AI technologies.

大數據科技，結合人工智能（AI）技術，正在改寫我們的決策方式。新科技帶來的顛覆性變化比目皆是。這門嶄新而全面的碩士課程是為來自不同背景、對新一代大數據和AI應用有興趣的學生而設計。在課程中，學生將會掌握大數據和機器學習相關的最新知識，以及它們的應用實例，讓學生在數據科學和AI時代的各行各業中領先一步。

## Key Features 課程特色

- Integrating latest developments in data science and artificial intelligence  
課程涵蓋「大數據」與「人工智能」兩大熱點，畢業即可踏入高薪行業
- Interdisciplinary programme team consisting of experts from computer science, statistics, as well as information management  
由電腦科學、統計學和信息管理等範疇的專家組成跨學科的課程團隊
- Well-known companies from the industry (e.g. IBM and AWS) serving as programme consultants and providing strong teaching supports  
由業界知名商業機構（如IBM及AWS）擔任課程顧問及提供強大課程支援

## Target Students 課程對象

- People who perform big data analytics in their job duties  
從事大數據分析的人員
- People taking part in AI or machine learning projects  
從事或管理人工智能及機器學習相關項目的人員
- People interested in data science and AI, and aspired to pursue a career in related areas  
對數據科學及人工智能感興趣，並有志於從事相關行業的人士

## Career Prospect 就業前景

Fueled by the recent advances in technologies, the global demand for data science and AI talents is increasing exponentially. Some job titles that are in high demand in Hong Kong as well as globally include:

隨著相關科技之急速發展，近年香港以至全球對於數據科學及人工智能的人才需求出現幾何級數的增長。現時，多個專業都缺乏相關人才，其中包括：

- Data scientist 數據科學家
- Big Data developer 大數據開發人員
- Big Data analyst 大數據分析師
- AI developer / architect 人工智能開發人員 / 架構師
- AI scientist / researcher 人工智能科學家 / 研究員

## Reference Salary 薪酬參考



## Professional Recognition 專業認可

The programme facilitates students to obtain professional recognitions, such as:  
課程有助學生獲得以下專業資格：

- Google Professional Data Engineer
- AWS Certified Big Data – Specialty
- SAS® Global Certification Program
- Microsoft Certifications (Data Engineer/Data Scientist/AI Engineer)



## Programme Facilities 課程設施

Students have a chance to use the following state-of-the-art computing laboratories and facilities.  
學生可以使用下列多個尖端電腦實驗室和設施。

### Research and Development Centres 研發中心



Big Data Intelligence Centre (BDIC)  
大數據及智能中心  
<https://bdic.hsu.edu.hk/>

### Laboratory facilities 實驗室設施



Decision Sciences  
Technology Laboratory  
決策科學科技實驗室



Applied Statistics Laboratory  
應用統計實驗室



Virtual Reality and  
Big Data Analytics Laboratory  
虛擬實境及大數據分析研究實驗室

## Industry Support 業界支持



The programme receives strong supports from well-known companies in the industry  
本課程得到業界知名機構在不同範疇提供支援

- **Curriculum design:** the curriculum is designed in consultation with industrial partners, including IBM, to make sure the course contents meet the fast-changing industrial demand  
**課程設計：**本課程的設計參考來自業界顧問(包括IBM)提供的意見，以確保內容緊貼最新形勢和業界需求
- **Systems support:** state-of-the-art software platforms and high-end desktop with NVidia RTX3080 are available to our students  
**系統支援：**本課程提供最新的相關軟件系統，以及配備NVidia RTX3080獨立顯卡的電腦
- **Teaching support:** industrial partners, including AWS and Google, provide active and practical teaching support and master lectures  
**教學支援：**本課程得到商業夥伴（包括AWS和Google）提供實質的教學支援，以及業界專家講座

# Interdisciplinary Programme Team 跨學科課程團隊

蔡少佳 教授 香港浸會大學博士  
機器學習，模式識別，圖像處理

Siu Kai CHOY, PhD (HKBU) Professor  
Machine Learning, Pattern Recognition, Image Processing

許溢宏 教授 美國維珍尼亞理工大學博士  
商業分析，運營管理

Yer Van HUI, PhD (Virginia Tech) Professor  
Business Analytics, Operations Management

潘忠強 教授 加拿大多倫多大學博士  
數據挖掘，信息檢索

Chung Keung POON, PhD (UToronto) Professor  
Data Mining, Information Retrieval

梁志堅 研究教授 美國維珍尼亞理工大學博士  
供應鏈管理，空運物流管理

Lawrence LEUNG, PhD (Virginia Tech) Research Professor  
Supply Chain Management, Air Cargo Logistics Management

何道森 副教授 香港理工大學博士  
大數據分析，物聯網應用，商業智慧

George HO, PhD (HK PolyU) Associate Professor  
Big Data Analytics, Internet-of-Things, Business Intelligence

林樹仁 副教授 香港城市大學博士  
機器學習，數據挖掘，圖像處理

Shu Yan LAM, PhD (HK CityU) Associate Professor  
Machine Learning, Data Mining, Image Processing

劉海 副教授 課程主任 香港城市大學博士  
機械人網絡，雲計算，群體智能

Hai LIU, PhD (HK CityU) Associate Professor, Programme Director  
Robotic Networks, Cloud Computing, Swarm Intelligence

馬凱琳 副教授 香港理工大學博士  
大數據與機器學習交通網絡分析

Helen MA, PhD (HK PolyU) Associate Professor  
Big Data and Machine Learning in Transportation Network Analysis

巫耀榮 副教授 香港科技大學博士  
物流系統優化，智慧系統設計

Daniel MO, PhD (HKUST) Associate Professor  
Logistics Systems Optimization, Design of Intelligent Systems

王越 副教授 香港科技大學博士  
機器學習，自然語言處理

Yue WANG, PhD (HKUST) Associate Professor  
Machine Learning, Natural Language Processing

黃惠虹 副教授 香港中文大學博士  
知識管理和決策支援系統

Collin WONG, PhD (CUHK) Associate Professor  
Knowledge Management and Decision Support System

黃彥璋 副教授 香港大學博士  
運籌學和優化，人工智能，虛擬實境

Eugene WONG, PhD (HKU) Associate Professor  
Operations Research and Optimisation, Artificial Intelligence, Virtual Reality

胡鎮浩 副教授 香港理工大學博士  
工業物聯網，智慧物流與製造

Jack WU, PhD (HK PolyU) Associate Professor  
Industrial Internet-of-Things, Smart Logistics and Manufacturing

朱振輝 助理教授 香港中文大學博士  
數據挖掘與人工智能，金融預測模型

Carlin CHU, PhD (CUHK) Assistant Professor  
Data Mining and Artificial Intelligence, Financial predictive modelling

侯雲 助理教授 英國倫敦帝國學院博士  
車聯網，智慧城市，無線網絡優化

Yun HOU, Aileen, PhD (Imp Lond) Assistant Professor  
V2X, Smart City, Wireless Network Optimization

馬裕得 助理教授 美國普渡大學博士  
網絡物理系統安全和私隱

Chris MA, PhD (Purdue) Assistant Professor  
Security and Privacy of Cyber Physical Systems

陳志江 高級講師 香港中文大學博士  
人工智能（多智能體系統），博弈論

Chi Kong CHAN, PhD (CUHK) Senior Lecturer  
Multi-Agent Systems, Game Theory

何健漢 講師 英國薩里大學博士  
數據科學，人工智能，區塊鏈和加密貨幣

Roy HO, PhD (Surrey) Lecturer  
Data Science, Artificial Intelligence, Blockchain and Cryptocurrency

余璐 講師 香港浸會大學  
無線認知網絡，無線充電，無線室內定位

Lu YU, PhD (HKBU) Lecturer  
Cognitive Radio Networks, Wireless Charging, Wireless Indoor Localization

# Programme Details 課程詳情

## Programme Duration 學制

- One year (Full-time)  
一年（全日制）
- Two year (Part-time)  
二年（兼讀制）

## Medium of Instruction 授課語言

- English  
英語

## Study Plan 修讀計劃

### Semester 1: Four major cores 第一學期：四個必修科目

Computing  
with Big Data  
大數據計算



1

Big Data  
Management  
大數據管理

Data Mining  
數據挖掘

Statistical Modeling  
統計模型

### Semester 2: One major core and three major electives\* 第二學期：一個必修科目和三個選修科目\*

Artificial Intelligence  
and  
Machine Learning  
人工智能與機器學習



2

Marketing Analytics  
with Machine Learning  
機器學習輔助市場分析

Distributed Systems  
and Cloud Computing  
分佈式系統與雲計算

Big Data Security  
and Privacy  
大數據安全與私隱

Topics in  
Data Science and  
Artificial Intelligence  
數據科學與  
人工智能專題

Supply Chain Modeling  
and Analytics  
供應鏈模型與分析

Major core 必修科目

Major elective 選修科目

\* Electives to be offered will be subject to the curriculum plan of each academic year

\* 選修科目將取決於該學年的課程計劃



This module has been included in the list of reimbursable courses under the Continuing Education Fund. The mother programme (Master of Science in Data Science and Artificial Intelligence) of this module is recognised under the Qualifications Framework (QF Level 6). CEF reimbursement is only applicable to local students. CEF Course Code: (1) 34Z136429; (2) 34Z136437

## Graduation Requirements 學位授予

Complete and obtain a Grade D or above in 8 modules (24 credits), including five core modules and three major elective modules; and obtain a minimum cumulative GPA of 2.0

完成8個科目（包括5個必修科目及3個選修科目，共24學分）並於每科取得D級或以上成績，及累積平均積分點達到2.0 或以上。



# Admission Requirements 入學要求

- A bachelor's degree in science, technology, engineering, business, social science or related disciplines from a recognized university; and  
具有獲認可的大學理科、工科、商科、社會科學或相關學科的本科學歷或同等學歷；及
- Fulfilment of one of the following English language proficiency requirements if the applicant's bachelor's degree was not obtained from a university/tertiary institution where English is the medium of instruction.  
如果頒發申請人學士學位的大學或大專院校並非以英語為教學語言，則申請人需要完成以下任何一項英語語言能力考試。
  - ◆ TOEFL(paper-based): ≥550, or TOEFL(internet-based): ≥79, or TOEFL-iBT Special Home Edition: Overall ≥79
  - ◆ IELTS: ≥6.0 or TEM-4: ≥70
  - ◆ An equivalent qualification

Exceptional consideration will be made for applicants who fall short of the admission requirements. Five percent of the admission quota is reserved for the exceptional cases.

未能達到入學要求的申請人將作特別考慮。特殊情況獲佔百分之五的錄取配額。

## 學費 (2023/24) Tuition Fee (2023/24)

The tuition fee covers the whole programme. Deposit payment is HK\$43,200 (local applicant)/ HK\$56,160 (non-local applicant). All payments are non-refundable and non-transferable.

學費涵蓋了整個課程。按金為港幣43,200（本地生）/ 港幣56,160（非本地生）。所有付款均不可退款且不可轉讓。

### Local Applicant 本地生

HK\$172,800 (Total 24 Credits)  
港幣172,800元（總計24學分）

### Non-local Applicant 非本地生

HK\$224,640 (Total 24 Credits)  
港幣224,640元（總計24學分）

## Scholarships and Financial Assistance 獎學金及資助

- Outstanding Student Entrance Scholarship  
「優秀新生」入學獎學金（學費減半）：HK \$86,400 (Local Applicant), HK \$112,320 (Non-local Applicant).
- Distinguished Graduate Scholarship  
「卓越/優秀畢業生」獎學金：HK \$8,000 (Distinction award), HK \$3,500 (Merit award).
- HSUHK "Alumni Fee Reduction Scheme"  
香港恒生大學「校友減費計畫」：HK \$17,280 (Local Applicant), HK \$22,464 (Non-local Applicant).
- Continuing Education Fund  
持續進修基金：Up to HKD \$25,000
- Extended Non-Means-Tested Loan Scheme  
擴展的免入息審查貸款計劃：Up to HKD \$172,800



# Admission Enquiries 入學查詢

Email : dsai@hsu.edu.hk  
Tel. : +852 3963 5014  
Homepage : <https://dsai.hsu.edu.hk>  
WeChat : MSC-DSAI  
WhatsApp : +852 5416 1492



香港恒生大學（恒大）的歷史可追溯至1980年，由何善衡慈善基金會、何添慈善基金會、大昌貿易行、若干恒生銀行創辦人及恒生銀行，慷慨捐資成立恒生商學書院，並於2010年根據《專上學院條例》（第320章）註冊成為非牟利私立專上學院及改組成為恒生管理學院，提供多元化本科及以上學位課程，其後於2018年10月30日獲香港特區政府批准正名為「香港恒生大學」。

恒大矢志成為區內具領導地位並以博雅教育為主導的私立大學；並透過卓越的教學、研究及服務，推動社會與世界發展。恒大由五個學院組成——商學院、傳播學院、決策科學學院、人文社會科學學院和翻譯及外語學院，現有逾6,000名全日制學生及約200名全職教學人員。

恒大提供範圍廣泛的四年制榮譽學士學位課程及碩士學位課程。部分課程為全港首創。所有課程均獲香港學術及職業資歷評審局（HKCAAVQ）審批認可並獲中國內地、香港和台灣政府承認。

QR Registration No. : 21/000423/L6  
Registration Validity Period : 01/09/2021 To 31/08/2025  
QF Level : 6

In case of any discrepancy between the English and Chinese versions of this leaflet, the English version shall prevail.  
本課程簡介以英文為準，中文譯本僅供參考。

The Hang Seng University of Hong Kong is incorporated in Hong Kong with limited liability by guarantee.  
香港恒生大學是一間於香港註冊成立之擔保有限公司。

Information updated as of October 2022. Please refer to the homepage for the latest programme information.  
有關資料更新至2022年10月。請瀏覽課程網站以獲取最新資訊。

