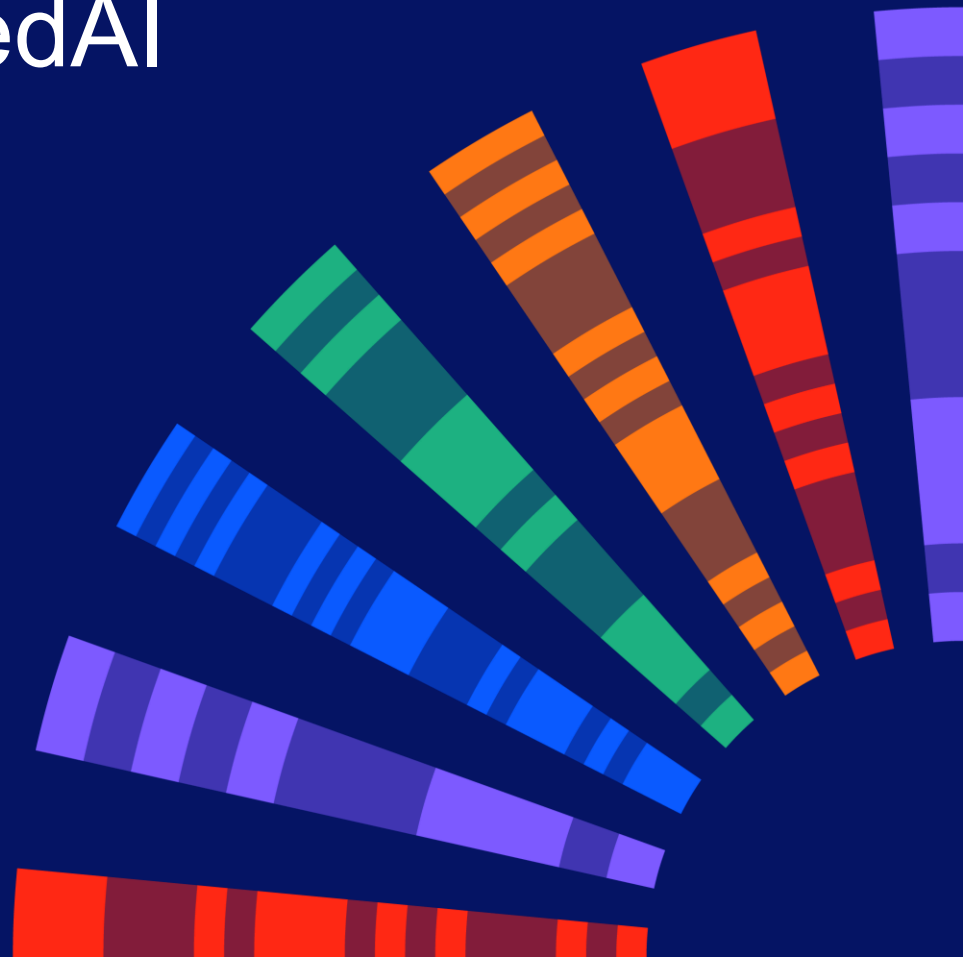
6224 BASc in AppliedAI
BASc(AppliedAI)

HKU Induction Day 2025

14 August 2025

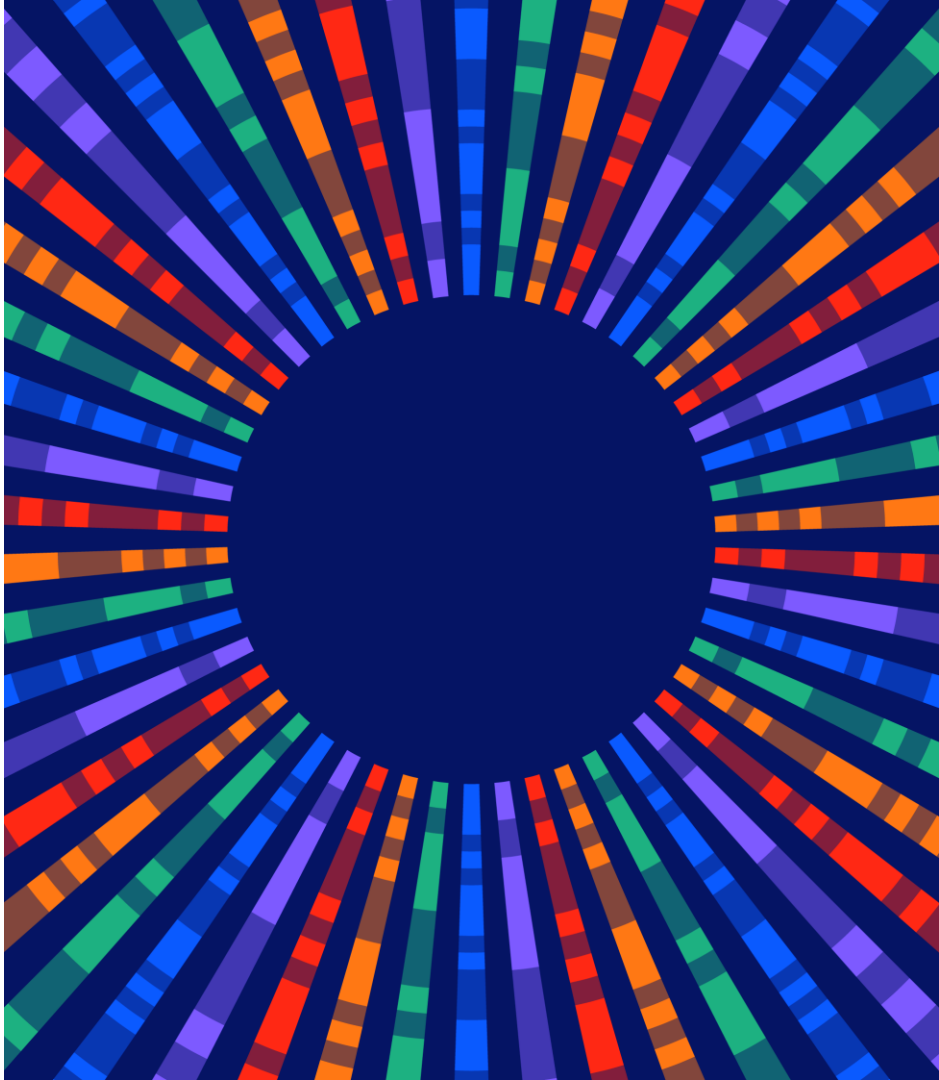


SCHOOL OF
COMPUTING &
DATA SCIENCE
The University of Hong Kong

About School of Computing & Data Science (CDS)

Empowering Changemakers of the Future

- Newly established school at The University of Hong Kong
- Encompasses the Department of Computer Science and the Department of Statistics and Actuarial Science
- Aims to foster innovation, collaboration, and excellence in the vital fields of
  - Computing
  - Statistical Sciences
  - Data Science
  - Artificial Intelligence



International rankings of HKU

QS WORLD UNIVERSITY RANKINGS

#2
in Asia (2025)

#11
in the world (2026)

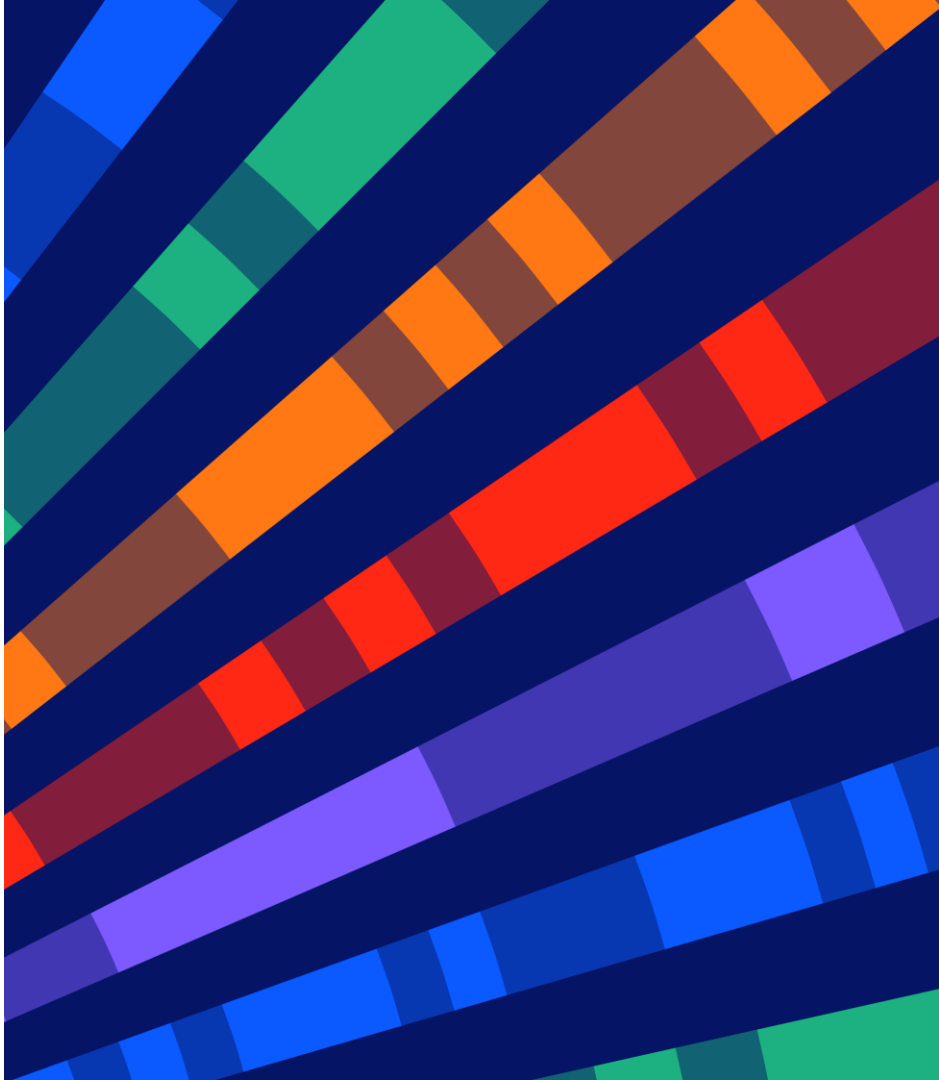
#18
Data Science and Artificial Intelligence (2025)

THE Times Higher Education

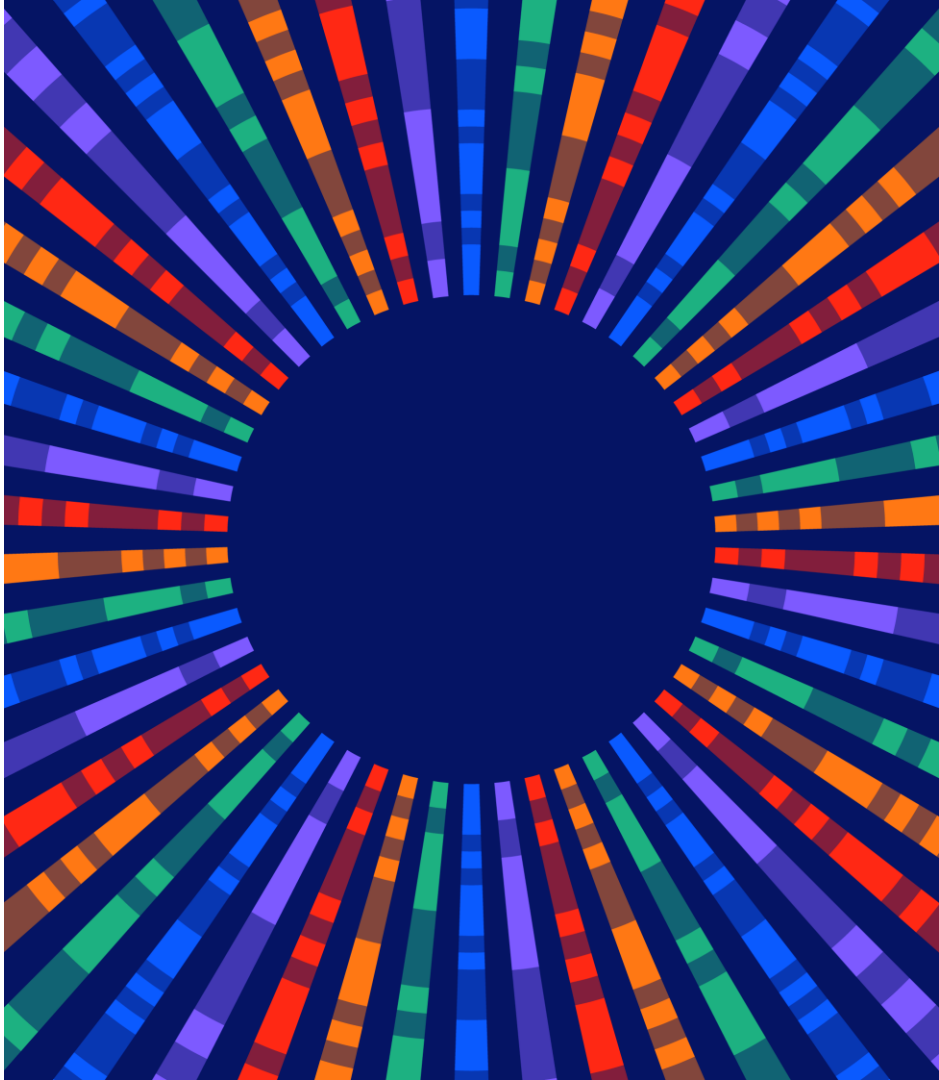
#6
in Asia (2025)

#35
in the world (2025)

The University of Hong Kong
School of Computing & Data Science

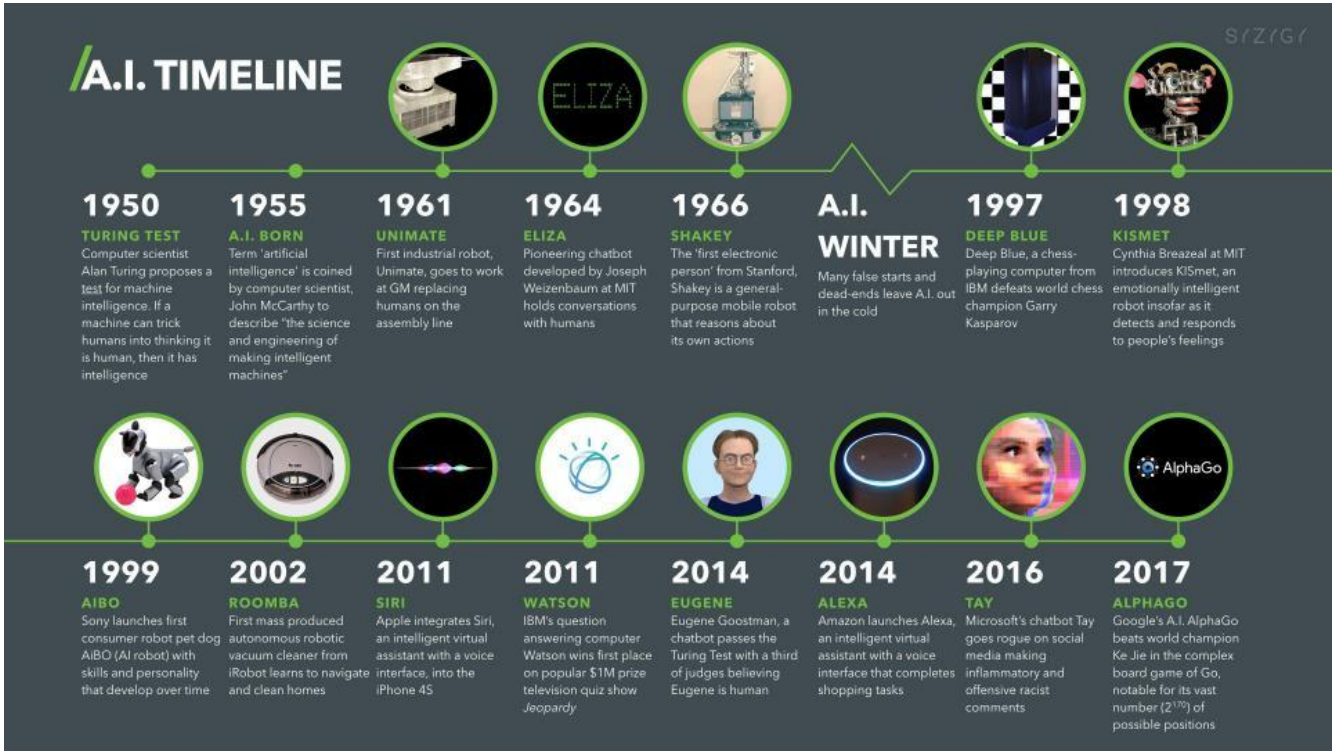


Introduction



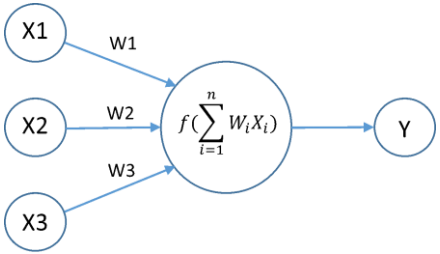
The University of Hong Kong
School of Computing & Data Science

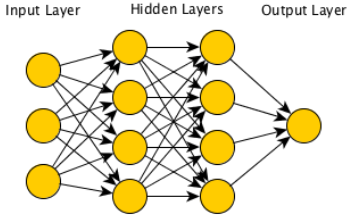
AI History



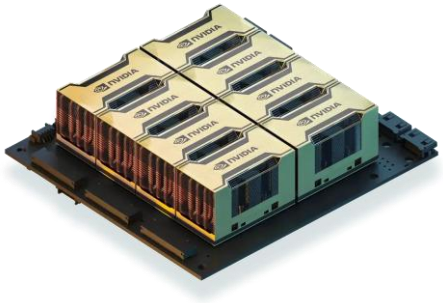
2022

The Success of AI

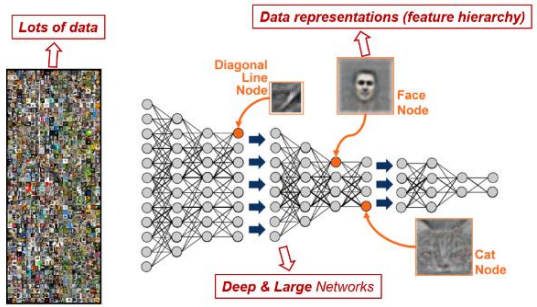




Neural Network



GPU A100



Deep Learning

Bachelor of Arts and Sciences (Applied AI)

BASc
Bachelor of
Arts & Sciences

Interdisciplinary programme co-offered by:

FACULTY OF SCIENCE
THE UNIVERSITY OF HONG KONG
香港大學理學院
SHKU Science

+

THE UNIVERSITY OF HONG KONG
faculty of architecture

+

DEPARTMENT OF MATHEMATICS
The University of Hong Kong

+

Faculty of
Social Sciences
The University of Hong Kong
香港大學社會科學學院

+

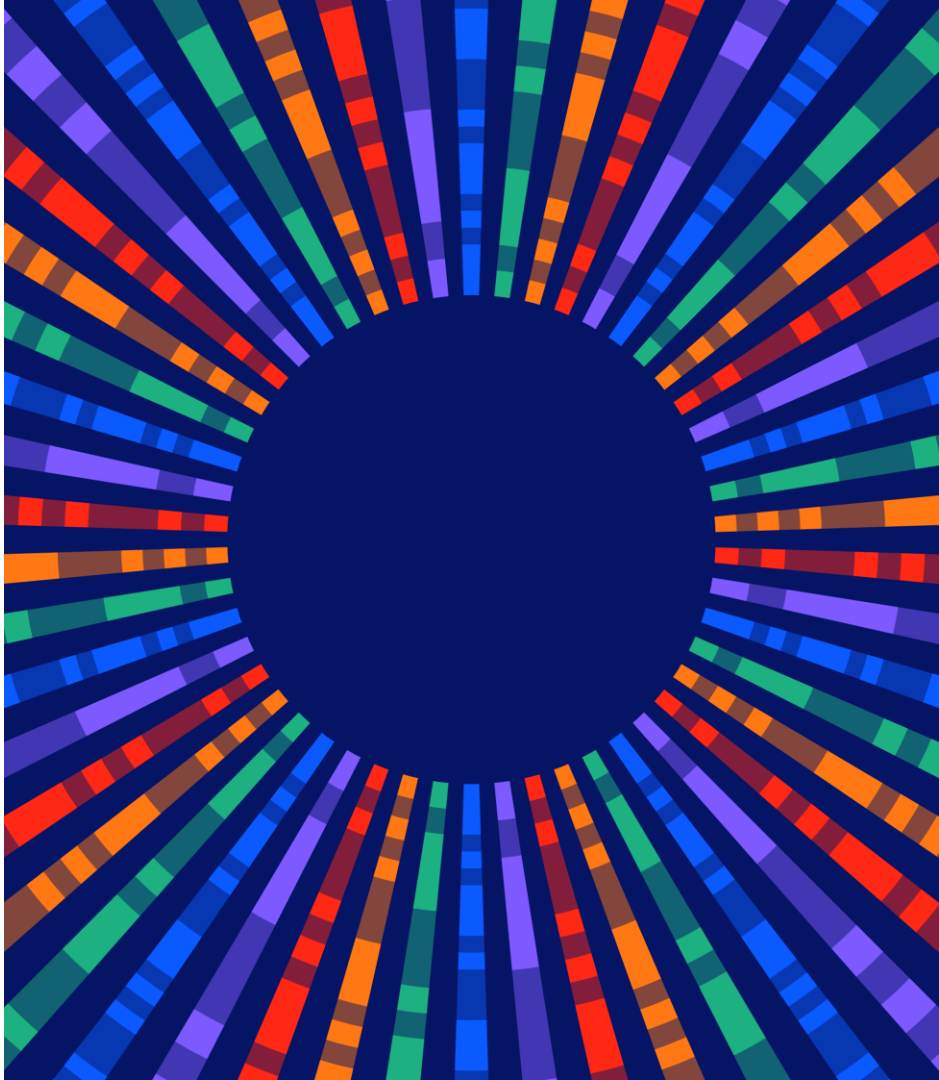
Faculty of Engineering
THE UNIVERSITY OF HONG KONG

SCHOOL OF
COMPUTING &
DATA SCIENCE
The University of Hong Kong

AI & Data Science
Computer Science
Statistics & Actuarial Science

AI

Curriculum Structure & Course Selection



The University of Hong Kong
School of Computing & Data Science

General Structure

Forty 6-credit courses spanning over 4 years of full-time study

(240 Credits)

UNIVERSITY EDUCATION
Language Courses
Common Core Courses
(42 credits)

+

2nd MAJOR / MINOR(S) / ELECTIVES
(84 credits)

+

PROGRAMME CORE
Core Courses
Concentration & Electives
Capstone Course
(96 credits)

+

BASc HORIZONTAL COURSES
(18 credits)

Remarks:

- Programme Core: MUST take
- 1 course = 6 credits
- 1 semester = 30 credits
  = 5 courses
- Variations are possible
  (± credits)
- Total number of credits cannot exceed 288 credits

BASc Horizontal Courses (18 credits)

BASC9001 Approaching Interdisciplinarity: Knowledge Beyond Disciplines
BASC9002 Interdisciplinary Leadership and Sustainable Development
SDST1016 Data Science 101

Multidisciplinary training in leadership, design thinking

Introduction to foundations of human knowledge and data science

Networking with fellow students from other BASc programmes

AI
SDS
GHD
D+
FT

Language Enhancement Courses – English Courses

CAES1001 Academic Communication in English

- Students who achieved Level 5 or above in English Language in HKDSE are exempted from taking this course
- For the list of equivalent qualifications, please refer to Division's first year student handbook 2025-26
- For non-local students with qualifications not listed in the aforesaid equivalent qualification list, you can apply the exemption by taking Academic Speaking and Writing test conducted by CAES.

CAES9821 Professional and Technical Communication for Statistical Sciences

- 1st semester or 2nd semester of Year 2

Language Enhancement Courses – Chinese Courses

Local Students: To be advised in Year 3

Putonghua-speaking Students:
CUND9001 / CUND9002 / CUND9003 / CUND9004

International Students:
“Chinese Language” CHIN9501 or CHIN9511 / “Chinese Culture” CHIN9521 or CHIN9522

Please refer to Division’s first year student handbook 2025-26

Common Core Courses

Unless otherwise prescribed in the curriculum regulations and syllabuses, students are required to successfully complete 24 credits in the Common Core Curriculum, comprising at least 6 credits and not more than 12 credits from each Area of Inquiry. Students are not allowed to take more than 24 credits of Common Core courses within an academic year, except for students who are required to make up for failed credits as well as those who take courses offered in the summer semester which are optional. In addition, Common Core courses cannot be taken as free electives.

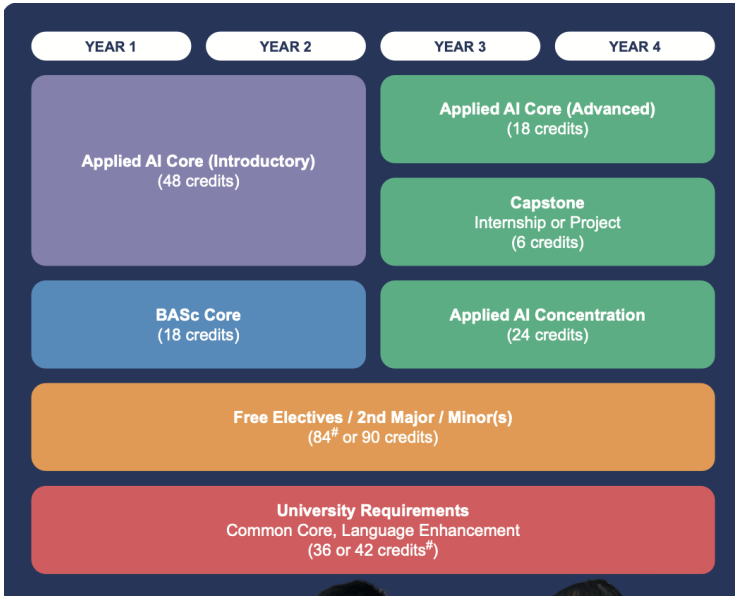
There are five Areas of Inquiry (AoIs):

- Scientific and Technological Literacy (course code: CCSTxxxx)
- Arts and Humanities (course code: CCHUxxxx)
- Global Issues (course code CCGLxxxx)
- China: Culture, State and Society (course code: CCCHxxxx)
- Artificial Intelligence (course code: CCAIxxxx)

UG5E1001 Introduction to the Constitution, the Basic Law and the National Security Law

- This is a non-credit bearing course which is required by the University under Regulation UG5(e) of the Regulations for First Degree Curricula as part of the graduation requirements for all current Full-time and Part-time Undergraduates.
- This online course is based on pre-recorded lectures (PRLs) and study materials which are prepared by the Faculty of Law. Students will adopt a self-directed learning approach.
- This course aims to provide a basic introduction of the Constitution, the Basic Law and the National Security Law. The supplementary materials provide students with an opportunity to examine the international perspective on the topics under study.
- Please click here to access the "UG5E1001 Student Guide" on instructions for access to the course. (Login to HKU Portal is required.)

Suggested Study Plan



Suggested Study Plan

THE UNIVERSITY OF HONG KONG 1 Aug 2025

Suggested / Example Structure of BASc(AppliedAI) Curriculum[1] for students in the academic year 2025-26

Year	I		II		III		IV	
Semester	One	Two	One	Two	One	Two	One	Two
Disciplinary Core	**ASAI1001** Artificial Intelligence: Foundation, Philosophy and Ethics **COMP1117** Computer Programming **MATH1013** University Mathematics II	**MATH2014** Multivariable Calculus and Linear Algebra **SDST2601** Probability and Statistics I	**COMP2119** Introduction to Data Structures and Algorithms **SDST2602** Probability and Statistics II	**COMP2120**[5] Computer Organization	**MATH3904** Introduction to Optimization **SDST3612** Statistical Machine Learning	**COMP3340**[6] Applied Deep Learning		
Other		**COMP2113** Programming Technologies (Pre-requisite of COMP2119)		**SDST3600**[4] Linear SDSTistical Analysis (Co-requisite/ Pre-requisite of SDST3612) (available in both semesters)				
BASc Core (in purple font) and **Disciplinary Elective (in deep blue font)**	**BASC9001** Approaching Interdisciplinarity: Knowledge Beyond Disciplines	**SDST1016** Data Science 101 (admission: 2023 and thereafter)		**BASC9002** Interdisciplinary Leadership and Sustainable Development	At least 24 credits from the following courses in Lists A1-5 and B (For fulfilling the requirement of a concentration, students should choose at least 18 credits, with at least 6 credits of which should be at advanced-level, from the corresponding list) **(please also refer to the remarks below)**: **AI Technology** (List A1) **COMP3271** Computer Graphics **COMP3356** Robotics **ASAI3010** Image Processing and Computer Vision **ASAI4011** Natural Language Processing **ASAI4012** High-performance computing: algorithms and applications **ASAI4013** Applied high-performance computing and parallel programming **ASAI4099** Special Topics of Applied AI **AI in Business and Finance** (List A2) **COMP3320** Electronic Commerce Technology **MATH3901** Operations Research I **MATH3906** Financial Calculus **SDST3613** Marketing Analytics **SDST4601** Time Series Analysis **ASAI4099** Special Topics of Applied AI **AI in Medicine** (List A3) **SDST3655** Survival Analysis **SDST4610** Bayesian Learning **ASAI3021** Modern Biostatistics **ASAI4022** Omics Data Analysis **ASAI4023** Medical Image Analysis **ASAI4099** Special Topics of Applied AI			

Suggested Study Plan

					AI in Smart City (List A4) **URBS1003** Theories and Global Trends in Urban Development **URBS1005** Urban Problems, Interventions and Design Thinking **GEOG2090** Introduction to Geographic Information Systems **GEOG2147** Building Smart Cities with GIS **GEOG2156** Introduction to Remote Sensing **GEOG3202** GIS in Environmental Studies **GEOG3420** Transport and Society **GEOG3430** Geospatial Data for Environmental Change **ASAI4099** Special Topics of Applied AI **AI in Neurocognitive Science** (List A5) **PSYC1001** Introduction to Psychology **PSYC2007** Cognitive Psychology **PSYC2051** Perception **PSYC2066** Foundations of Cognitive Science **PSYC2067** Seminars in Cognitive Science **ASAI4099** Special Topics of Applied AI **List of Other Elective Courses** (List B) **COMP3251**[7] Algorithm Design[7] **COMP3252**[7] Algorithm Design and Analysis[7] **COMP3278** Introduction to Database Management Systems **MATH3600** Discrete mathematics **MATH3601** Numerical Analysis **MATH3911** Game Theory and Strategy **MATH3943** Network Models in Operations Research **SDST3600** Linear Statistical Analysis **SDST3622** Data Visualization **SDST4602** Multivariate Data Analysis
Capstone[3]					At least 6 credits selected from the following courses: **ASAI3799** Directed Studies in Applied AI **ASAI4766** Applied AI Internship **ASAI4798** Applied AI Project (12 credits)	
UG 5 Requirements	**Common Core** (24 credits of common core courses within the first three years, comprising one course from any four different areas of inquiry)					
	AILT1001[9] Artificial Intelligence Literacy I	**AILTXXXX** Artificial Intelligence Literacy II				
	CAES1001[2] Academic Communication in English (available in both semesters)	**CAES9821** Professional & Technical Communication for Statistical Sciences (available in both semesters)	**Chinese language enhancement course specified for the degree curriculum**[8] course code and title to be confirmed			

Remark: As one of the graduation requirements, students must fulfill at least one of the five concentrations by completing at least 18 credits of courses prescribed specially for each corresponding concentration. Students may declare concentration(s) in their senior years of study (e.g. year 3 or 4), and are recommended to pursue (a) AI Technology, and if applicable, supplemented with a second concentration from (b) to (e). Upon graduation, a certification letter confirming the completion of the chosen concentration(s) will be provided for students.

Note 1: This table is for students' reference only for planning their studies ahead. Course offering semester and availability are subject to changes. Some courses are available in both semesters. Courses should be 6-credit bearing unless otherwise stated.

Note 2 Unless otherwise exempted through having achieved Level 5 or above in English Language in the Hong Kong Diploma of Secondary Education Examination, or equivalent.

Note 3: If students take the 12-credit "Applied AI Project", they do not need to take a 6-credit elective from the "List of Other Elective Courses" (List B) above. On the other hand, students who do not take the 12-credit "Applied AI Project" are allowed to take a course in one of the Concentrations as an elective.)

Note 4: SDST3600 also appears in the "List of Other Elective Courses (List B)". It is counted towards the fulfillment of the 24-credit requirement (as SDSTed above) of electives in the programme.

Note 5: Students may go for exchange in Year Two semester two and take the core course COMP2120 in Year Three or take a similar course overseas and transfer the credits back to HKU.

Note 6: Students plan to go for exchange in Year Three semester two should take COMP3340 in Year 2 semester two or take a similar course overseas and transfer the credits back to HKU.

Note 7: It is recommended that students opt for COMP3251 Algorithm design instead of COMP3252 Algorithm design and analysis when selecting elective courses between COMP3251 and COMP3252.

Note 8: Candidates should check with the School of Computing and Data Science for the course code and course title of the Chinese language enhancement course to satisfy the programme and graduation requirements. For those who did not study Chinese language during their secondary education and have not reached the required proficiency level for the Chinese language enhancement course specified for the degree curriculum, they are required to take a course in either Chinese language or Chinese culture offered by the Chinese Language Centre of the School of Chinese in lieu.

Note 9: All undergraduate students admitted from 2025-26 onwards (except those in the 2-year part-time Bachelor of Nursing programme) are required to take AILT1001. Students are highly encouraged to take AILT1001 in their first year (Semester 1 or 2) as it is a prerequisite for taking the second AI Literacy course required for graduation.

THE UNIVERSITY OF HONG KONG

Suggested BASc(AppliedAI) First Year Timetable

(For students in the academic year 2025-26)

2025-26 Semester 1	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
09:00 - 9:50 am		ASAI1001				
10:00 - 10:50 am				ASAI1001		
11:00 - 11:50 am				ASAI1001		Common Core
12:00 - 12:50 pm				MATH1013-B		
13:00 - 13:50 pm	MATH1013-D	COMP1117-A	Common Core		COMP1117-B	
14:00 - 14:50 pm	MATH1013-D	COMP1117-A		MATH1013-D	COMP1117-B	
15:00 - 15:50 pm		BASC9001				
16:00 - 16:50 pm		BASC9001				
17:00 - 17:50 pm		MATH1013-B				
18:00 - 18:50 pm		MATH1013-B				

Other courses to be taken:

- BASc(AppliedAI) students are required to complete 18 credits of BASc Core Courses as part of their graduation requirement. One of the required BASc Core Course to be taken in 1st semester is **BASC9001 Approaching Interdisciplinarity: Knowledge Beyond Disciplines**

Remarks:

- COMP1117: A number of places are reserved in subclass A and B for BASc(AppliedAI) students. See the timeslots above.
- MATH1013: A number of places are reserved in subclasses B and D and for BASc(AppliedAI) students. See the timeslots above.

2025-26 Semester 2	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
09:00 - 9:50 am		COMP2113		MATH2014-C	MATH2014-C	
10:00 - 10:50 am		COMP2113			MATH2014-C	
11:00 - 11:50 am						Common Core
12:00 - 12:50 pm		SDST2601				
13:00 - 13:50 pm			Common Core			
14:00 - 14:50 pm						
15:00 - 15:50 pm		SDST1016				
16:00 - 16:50 pm				SDST2601	SDST1016	
17:00 - 17:50 pm				SDST2601	SDST1016	

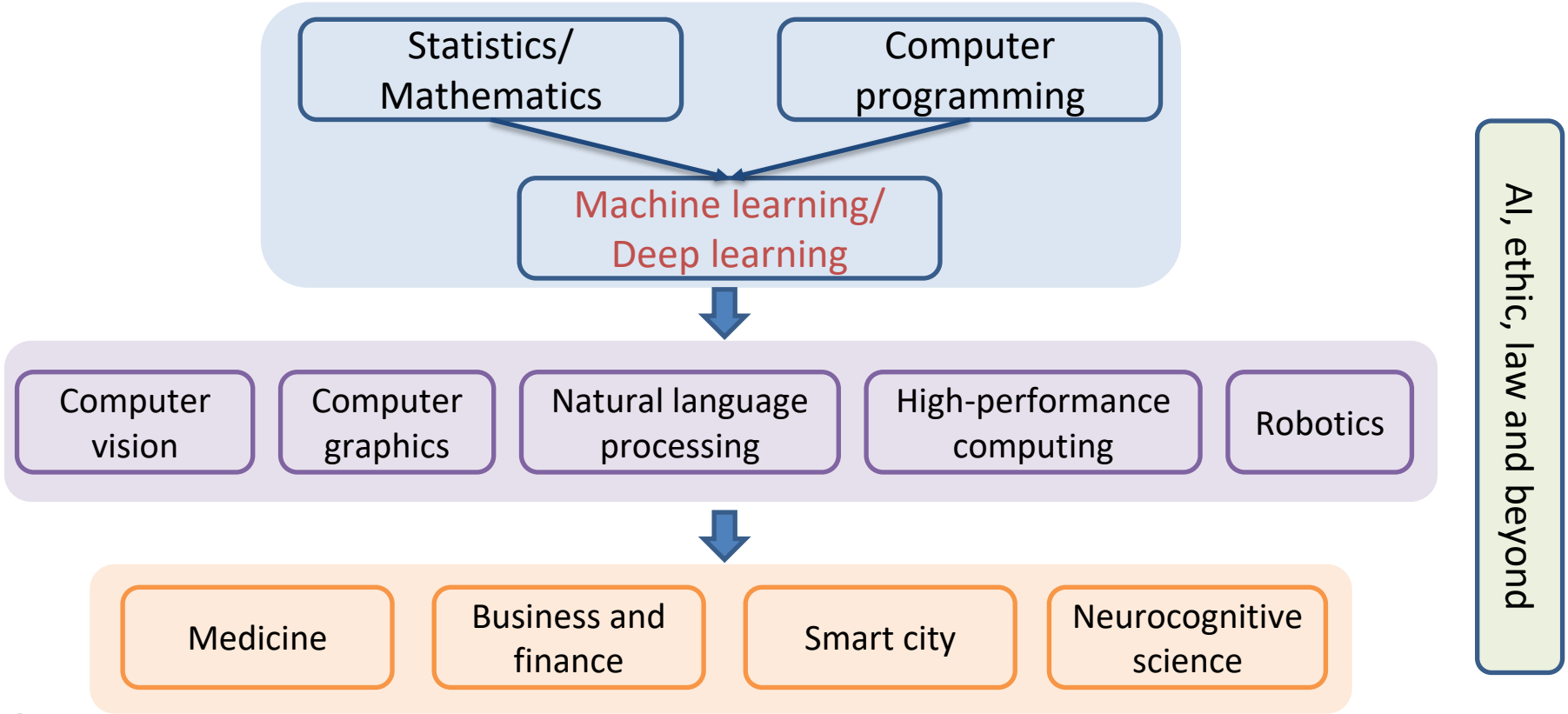
Other courses to be taken:

- Students are reminded to take 3 BASc core courses: BASC9001 Approaching Interdisciplinarity: Knowledge Beyond Disciplines, SDST1016 Data Science 101 and BASC9002 Interdisciplinary Leadership and Sustainable Development to fulfill the BASc core course requirement. BASC9002 will be offered to students in Year 2 semester 2.
- Candidates who have achieved Level 5 or above in English Language in the Hong Kong Diploma of Secondary Education Examination (HKDSE), or equivalent, are exempted from taking CAES1001 Academic Communication in English. Candidates who are not exempted from Academic Communication in English will be required to take CAES1001 as supplementary credits and will thereby be required to accumulate 240 credits for graduation from the University.

Remarks:

- As there are over dozens of subclasses in CAES1001, seats are not reserved for freshmen, who are free to choose the most suitable timeslots according to their preference.
- COMP2113: A number of places are reserved in subclass B, C and D for BASc(AppliedAI) students. See the timeslots above.
- MATH2014: A number of places are reserved in subclass C for BASc(AppliedAI) students. See the timeslots above.

Course Structure of AI Programme



Academic Integrity

Plagiarism is a serious offence in the academic world. It constitutes academic theft – the offender has ‘stolen’ some intellectual property and presented it as his or her own. Plagiarism speaks to a person’s integrity and honesty, stifles creativity and originality, and defeats the fundamental purpose of education.

In this University, plagiarism is a disciplinary offence. Any student who commits the offence may face disciplinary action. It is the responsibility of all students at all levels to familiarize themselves with proper academic practice of writing, citation and referencing. For detailed information about plagiarism, please visit the website at https://tl.hku.hk/plagiarism/.

Progression and Discontinuation

Unless otherwise permitted by the Board of Studies, students will be recommended for discontinuation of their studies if:

- They fail to complete successfully 36 or more credits in two consecutive semesters (not including the summer semester), except where they are not required to take such a number of credits in the two given semesters; or
- They fail to achieve an average Semester GPA of 1.0 or higher for two consecutive semesters (not including the summer semester); or
- They have exceeded the maximum period of registration specified in the Regulations for the Degree of BASc(Applied AI).

Disciplinary Matters

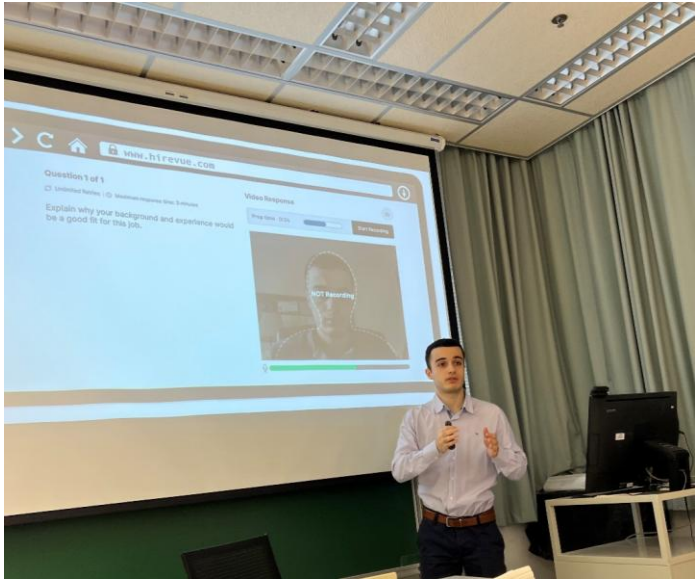
- The University upholds the highest standards of academic integrity
- Apart from plagiarism, cheating or misconduct by the student will be considered by the Disciplinary Committee
- The Committee will decide the penalty on each case, ranging from reprimand, suspension of studies or even expulsion from the University depending on the seriousness of the offence

Regulation and Syllabus for BASc(AppliedAI)

Please refer to the Regulation and Syllabus posted on the Division website at https://www.csai.cds.hku.hk/

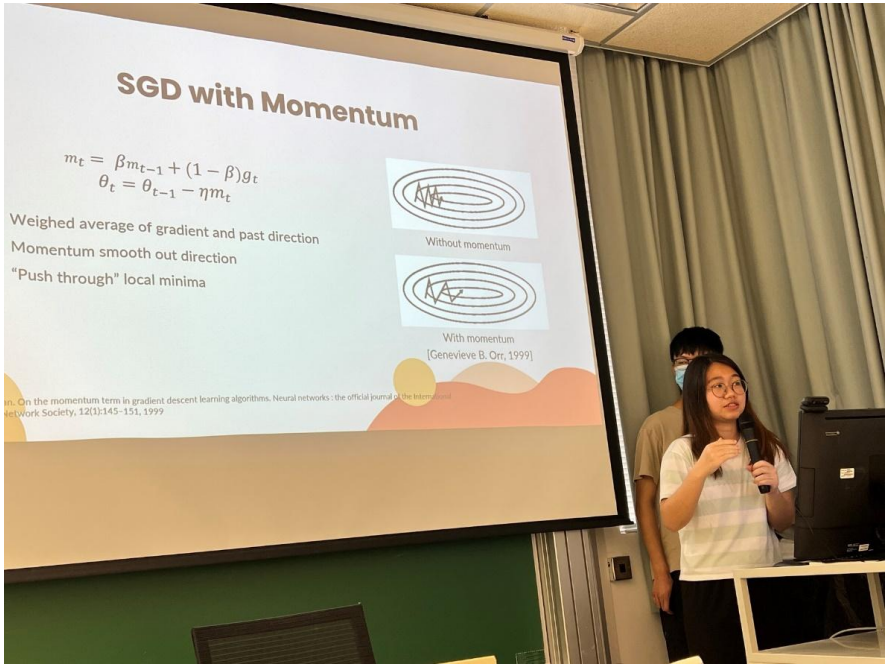
Capstone AI Projects

Generalizable machine learning technology with application in medical image analysis



AI Video Analytics Tool for Human Behavioural Intelligence

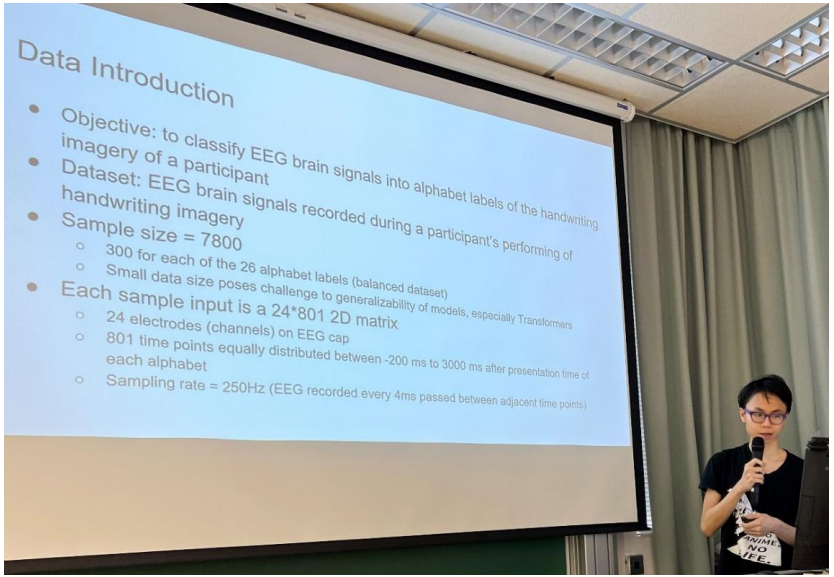
Capstone AI Projects



Generalizable training algorithms for deep learning based image Classification

Prediction of Stock Returns from Social Media Using Deep Learning

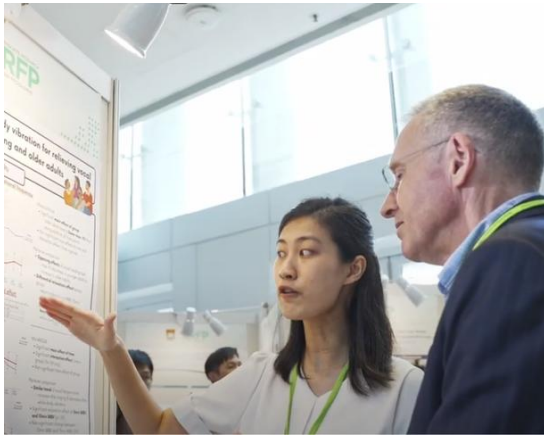
Capstone AI Projects

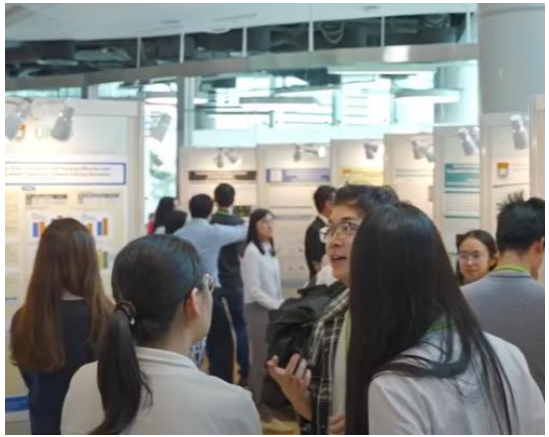


Recognition of imagined handwritten content from brain signals

Undergraduate Research Opportunities

- Undergraduate Research Fellowship Program (URFP)





Support for Internships

- Partner with Industrial Leaders (in year 3 or year 4)

FUTURE READINESS

fri.hku.hk

These two online courses are specifically designed to help year one students successfully transition to university life and provide you with the foundational skills needed to excel in your academic journey

* *First year students have been pre-enrolled*

Preparation for University: Essentials for Success

Introduction to Research Methods

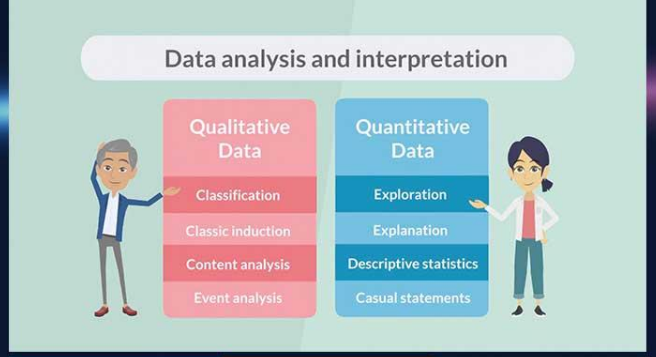
FUTURE READINESS

Completion of each course will earn you one out-of-classroom academic credit*

Bonus: if you complete both courses by the end of October, you will get a free HKU T-shirt

*Out-of-classroom academic credits are transcriptable credits in blocks of three as a recognition of out-of-classroom learning experiences; they do not count against the 240-credit graduation requirement for a normative four-year programme.

fri.hku.hk



Other Useful Information

Academic Advising and Scholarships Office

https://aas.hku.hk/

Academic Support and Examinations Section, Registry

https://www.ase.hku.hk/

CEDARS

https://cedars.hku.hk

Examinations Office

https://www.exam.hku.hk/

Information Technology Services & Student Information System

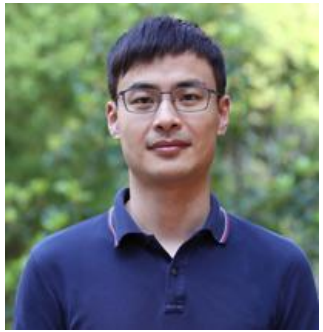
https://www.its.hku.hk/

University Health Service (UHS)

https://www.uhs.hku.hk/

Who's who?

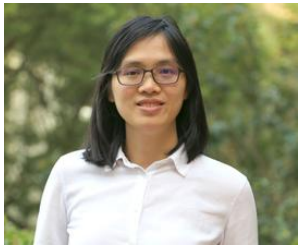
Programme Co-Directors



Prof. Lequan Yu
(AI & Data Science, RRS 226)

Prof. Patrick NG
(Mathematics, RRS 424)

School Academic Adviser



Prof. Liangqiong QU (RRS 121)

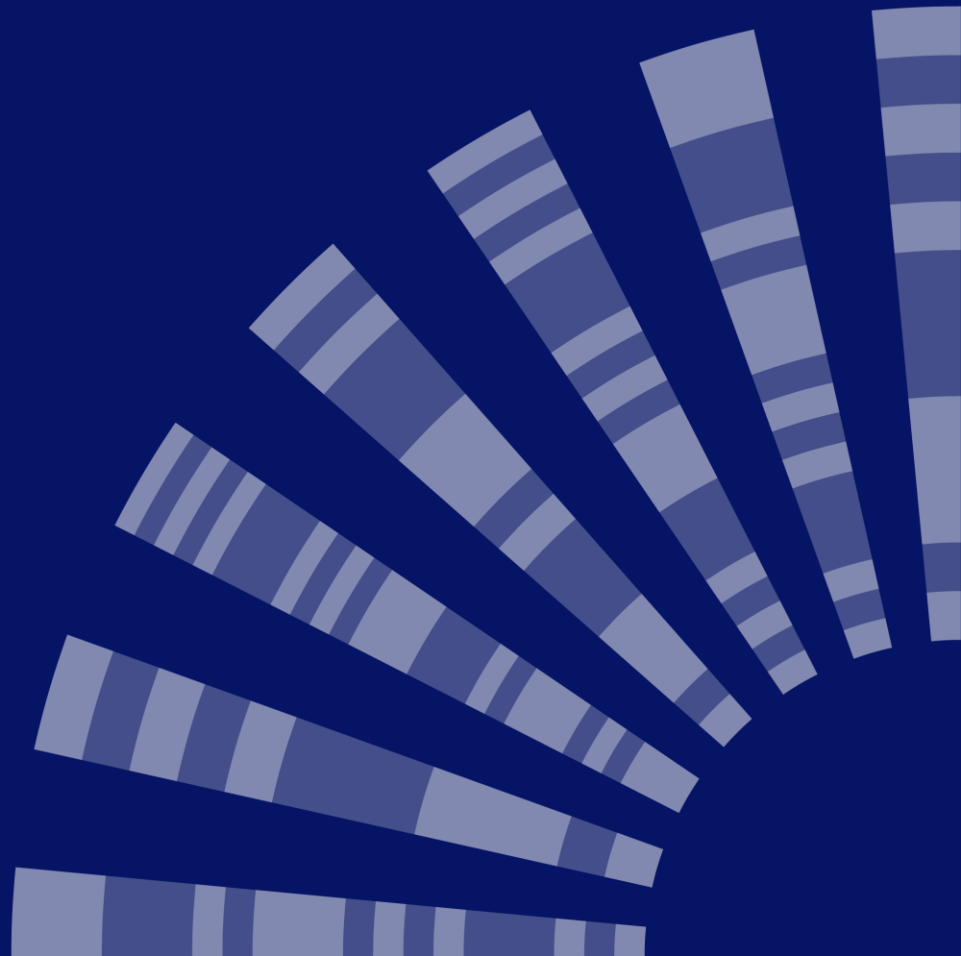
Prof. Yuenwen LEI (RRS 319)

Thank you!

Contact us

Email: app6224@hku.hk

Tel: 3917-0434



SCHOOL OF COMPUTING & DATA SCIENCE
The University of Hong Kong