



香港中文大學統計學系
Department of Statistics
THE CHINESE UNIVERSITY OF HONG KONG

Faculty of Science

ADMISSIONS
HANDBOOK
2024
ENTRY

Risk Management
Science
Programme

風險管理科學課程



Overview

Since its establishment in 2000, the Risk Management Science Programme has been the pioneer in Hong Kong for nurturing well-trained professionals in the risk management field.

Recent financial crises have stimulated public interest in risk management and raised awareness of its importance in today's investment environment. The ability to extract meaning from data and possess a thorough understanding of risk management has become vital to financial institutions. This programme is designed to fulfil the increasing demand for talent in this area.



Our programme is tailored for students who want to pursue a career in the financial industries, and who are interested in quantitative and mathematical methodologies. It is specifically designed to equip students with the knowledge and skills to understand risk management from both theoretical and application perspectives in insurance, finance and other related areas. Risk management is an interdisciplinary subject. Our students receive solid training in statistics and other foundational subjects including finance, economics, accounting, mathematics and computer science. In addition, various enrichment activities such as alumni talks and seminars, research-based projects and industrial practicums provide in-depth professional training and act as a bridge between the classroom and industry.

Our graduates are well equipped for positions in risk management, finance, banking, insurance and related areas in which the quantitative and analytical skills of risk management are required.

Admissions

Basic Information

- Duration of Study: 4 years
- Number of Student Intake: 25
- JUPAS Code: JS4719



Admissions Requirements and Formula

JUPAS applicants must have achieved the following minimum requirements in the Hong Kong Diploma of Secondary Education Examination (HKDSE). The programme admission scores are calculated based on the applicant's best five subjects (with weightings applied). Bonus points are granted for each extra core or elective subject, if any.

Core Subjects	Chinese Language Minimum Level: Level 3 Weighting: 1.0	Core Mathematics Minimum Level: Level 3 Weighting: 2.0
	English Language Minimum Level: Level 3 Weighting: 1.0	Citizenship and Social Development Minimum Level: A (Attained)
Elective Subjects	Mathematics (Module 1 or 2) Minimum Level: Level 3 Weighting: 2.0	Elective (Any one of Category A elective subjects) Minimum Level: Level 3 Weighting: 1.0

JUPAS Statistics

	HKDSE	CHI	ENG	MATH	LS	M1/M2	Best Elective	Second Elective	Third Elective
2022	Upper Quartile	4	3	5*	4	5*	5*	5	-
	Median	4	5	5*	4	5	5	5	-
	Lower Quartile	4	4	5	4	5	5*	5	-
2021	Upper Quartile	3	4	5**	4	5	5*	5	-
	Median	4	4	5*	5	5	5*	5	4
	Lower Quartile	3	3	5*	4	5	5*	5	-

* Admission grades (2023 entry) will soon be available. Please visit the following link for more details:

<https://admission.cuhk.edu.hk/jupas/download.html>



Risk Analytics Stream

With the rise of big data, practices in the risk management industry have been revolutionised by instantaneous access to voluminous information. Advanced knowledge of data science and data analytics subjects such as statistical learning and data mining is increasingly important. In response to demand for talents in both risk management and data analytics, the Risk Analytics Stream is offered to elite students in the programme.

The stream places special emphasis on statistical science and computer science, including but not limited to subjects such as statistical inference, actuarial science and financial mathematics. Learning is augmented by various enrichment activities, such as mentorship, practicum in banks and start-up companies, and summer research. Upon graduation, students are well-equipped to become professional risk managers with a strong background in data science and data analytics. Job referral services on internships and graduate jobs and opportunities for further studies will be provided to students of the stream.

Students who have obtained a total score of 30 or above in their best five DSE subjects or a cumulative GPA of 3.7 or above in their first or second year of attendance may apply for specialisation in the Risk Analytics Stream.

Non-JUPAS Admissions Scheme

Students with non-HKDSE qualifications (e.g., public examinations such as IB, SAT, GCE, GCSE or Gaokao) and diploma/sub-degree credentials are welcome to apply via the non-JUPAS admissions scheme. For further details, please visit the homepage of the Office of Admissions and Financial Aid at <http://admission.cuhk.edu.hk/>.

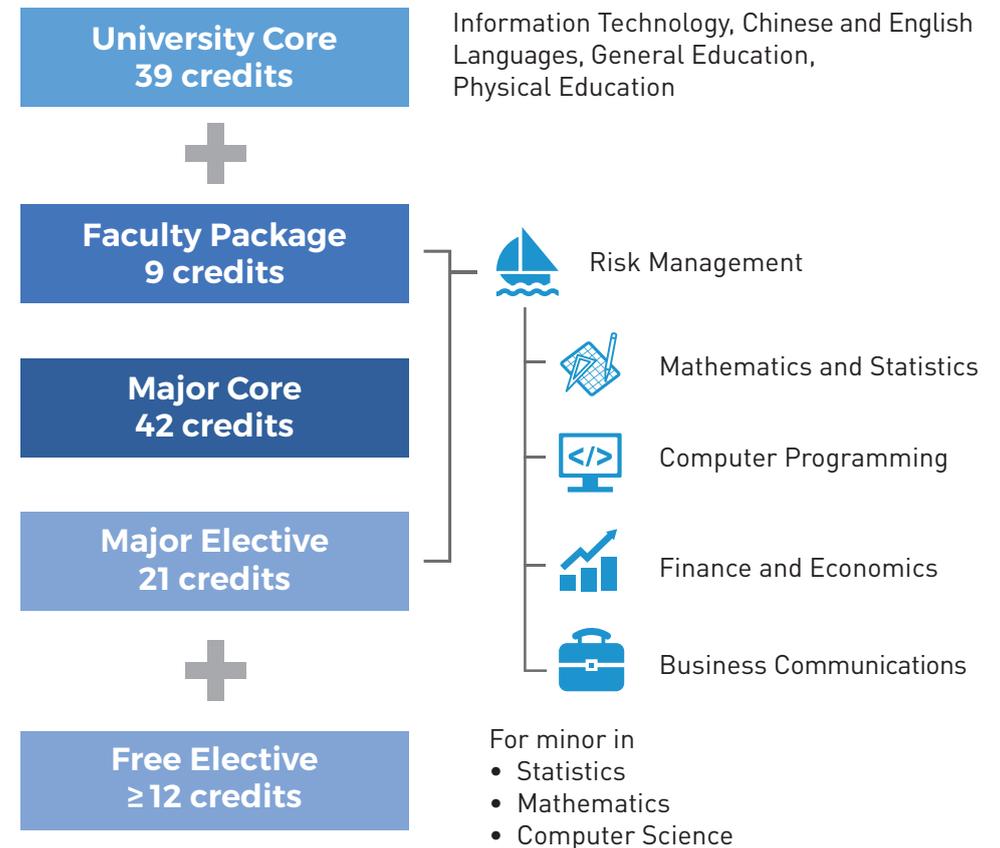
SAYT-RMSC Summer Course for Prospective Students

Science Academy for Young Talent (SAYT) organised by the Faculty of Science, CUHK provides a number of credit-bearing summer courses for secondary school students.

Our programme provides a foundation course (SAYT1006 – Risk Management and Actuarial Science) in which inspiring and interesting fundamental concepts of risk management are discussed. It is held in early August each year and is suitable for prospective students. One unit of university credit is waived upon completion of this course.

For application information, please visit the SAYT homepage at <https://www.sci.cuhk.edu.hk/en-gb/sayt/application>.

Curriculum



Curriculum Overview

Our curriculum places special emphasis on the analytical and critical aspects of risk management. The core courses in the curriculum cover fundamental theories and pragmatic knowledge from a wide range of subjects in mathematics, statistics, finance, accounting, decision science and managerial economics. Our elective courses enable students to explore the advanced aspects of risk management, including stochastic calculus, statistical modelling and simulation methods for financial applications.



Enrichment Activities

Our programme offers students a series of enrichment activities, such as alumni talks, professional sharing sessions and Bloomberg tutorial sessions. These activities support students' development as risk management professionals and encourage them to adapt to our ever-changing knowledge-based society.

The Chinese University of Hong Kong – University of Edinburgh Dual Degree Programme



Under the dual degree programme, students will graduate with two bachelor's degrees each from CUHK and UoE respectively. The University of Edinburgh is one of the UK's leading centres in Mathematics and ranked 16th in the world in the QS World University Rankings in 2022. In addition to core courses and capstone/ dissertation, the School of Mathematics offers a range of options in pure mathematics, applied mathematics, theoretical physics, statistics, operational research, financial mathematics and business analytics.

Programme Structure

Duration: 4 years

Study Pattern: first 2 years in CUHK + second 2 years in Edinburgh

1st Cohort

2023-24

Degrees Conferred

CUHK Major	CUHK Degree	UoE Degree
Risk Management Science (RMSC)	BSc in Risk Management Science	BSc in Mathematics and Business

Minimum Requirements

1. Cumulative GPA of 3.3 or above in their first year of studies (summer term included).
2. Students should have taken courses following the recommended study plan of dual degree students, or they may have to extend their normative study period as deemed appropriate. Please check with the Department of Statistics for more information.

Scholarships

- Four full-time first-year undergraduate students in the Risk Management Science Programme will be awarded the Department of Statistics Scholarships upon admission. The scholarship is granted based on admissions results. The amount is HK\$10,000 each.
- The Fan Fang Qi Ying Memorial Bursary is offered to a student in demonstrable financial need. The sum is HK\$10,000, tenable for a maximum of four years.
- The Department of Statistics and Faculty of Science provide Undergraduate Student Exchange Sponsorship/Scholarship Schemes to support students who wish to undertake exchange studies abroad.
- University- and College-wide scholarships are also offered on the basis of admissions results, academic performance and merit, in addition to financial need. For more information, please visit the website of the Office of Admissions and Financial Aid at <http://admission.cuhk.edu.hk/finance.html>.

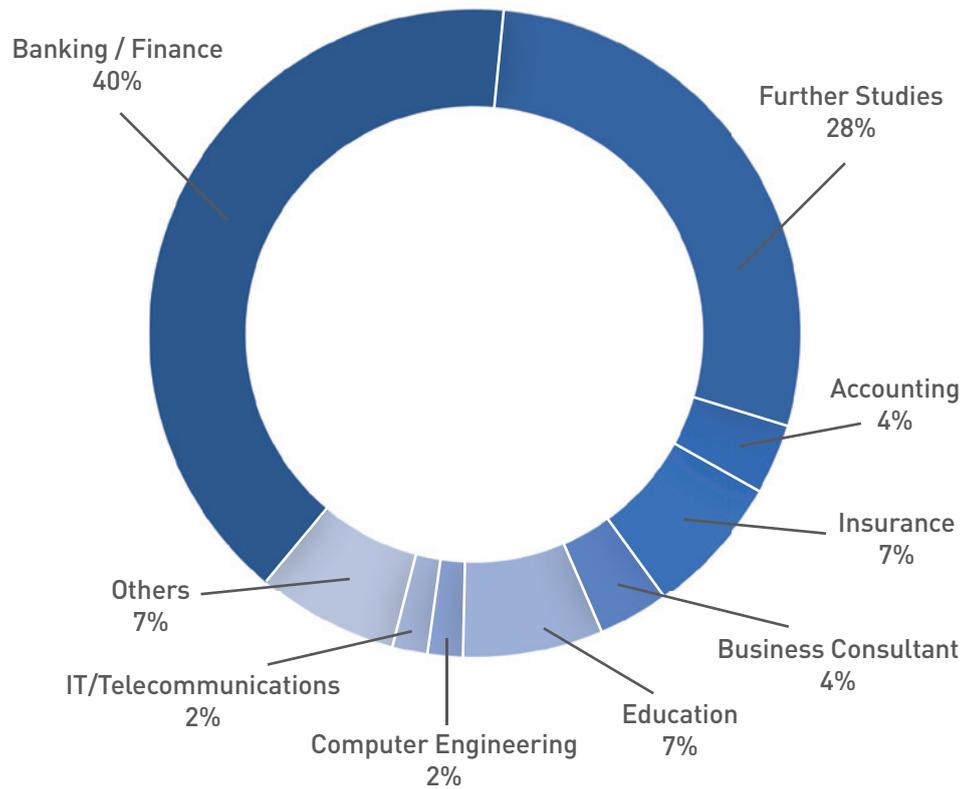
Career Prospects

Our graduates have a wide range of career choices in finance, banking, insurance and related areas. New graduates commonly take the positions of assistant risk manager, market risk officer, credit risk officer, market risk analyst, financial analyst, quantitative analyst, actuarial officer, accounting officer, etc. in major commercial banks, investment banks, security houses, insurance companies and accounting firms. Some of our graduates pursue Master's and doctoral degrees in prestigious schools in Hong Kong and overseas.



<h3>Investment Banks</h3>  <ul style="list-style-type: none"> • JP Morgan • Morgan Stanley • BNP Paribas • Goldman Sachs • Royal Bank of Scotland 	<h3>Retail Banks</h3>  <ul style="list-style-type: none"> • HSBC • Standard Chartered Bank • Bank of East Asia 	<h3>Financial Services</h3>  <ul style="list-style-type: none"> • Bloomberg • Convoy Financial Group
<h3>Government Services</h3>  <ul style="list-style-type: none"> • Census and Statistics Department • Hong Kong Monetary Authority • Airport Authority 	<h3>Accounting and Insurance Firms (Risk Advisory)</h3>  <ul style="list-style-type: none"> • Deloitte & Touche • KPMG • Ernst & Young • HSBC Insurance (Asia) • AIA Company Ltd 	<h3>Further Studies</h3>  <p>MSc/MPhil/PhD in</p> <ul style="list-style-type: none"> • Risk Management • Statistics • Operations Research • Financial Engineering

Employment Statistics of 2021 and 2022 RMSC Graduates



Experiential Learning

Internships and Practicum

Students have the opportunity to enhance their work experience through summer internships and other internship opportunities. A credit-bearing course (RMSC4202 Practicum) strengthens students' professional training and connects the classroom with the business world. Many participants have subsequently received offers to return to their positions as a result of their outstanding performance.

Some of the companies in which our students have had internships are listed below.

BNP Paribas	Citibank	Credit Suisse	DBS Bank
HSBC	Standard Chartered Bank	EFG Bank	Hang Seng Bank
Bank of China	Ernst & Young	Société Générale	Parexel International
HKEx	CASH Algo	AXA	AIA Group Limited
Gottex Penjing	AON Hong Kong Limited	Airport Authority	AEGON

Academic year	2022-23	2021-22	2020-21
Number of students participating in internships and practicum	26	23	20

Summer Research Internship Programme

The Risk Management Science (RMSC) Summer Research Internship Programme provides an opportunity for RMSC students to conduct a research project under the supervision of the department teaching staff with an allowance in summer. The programme aims to encourage students to engage in research activities and to be exposed to the research environment.

Career-related Activities

The programme regularly organises career-related activities to help students make an informed decision about their career direction after graduation.



Career Talks



NVIDIA Workshop



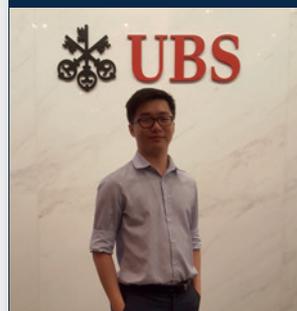
Company Visit



Career Training Workshops

Internship Sharing

Steve Chan



UBS AG

It was my great honour to join the Industrial Placement Program (IPP) at UBS AG last year. During this one-year internship, I was involved in many different projects to automate and improve processes throughout the trade lifecycle. I played different roles in these projects, including that of a business analyst, a developer and even a project manager overseeing the progress of the projects. Majoring in RMSC helped me greatly in this internship, especially in terms of hard skills and financial knowledge.

In terms of hard skills, the advanced courses enabled me to develop my programming muscles. Because coding is required for derivatives pricing and simulation in some courses, the training in Excel VBA and R enabled me to perform my tasks in the internship. The machine learning and data analysis courses also helped me acquire both the theoretical knowledge and practical skills to process large amounts of data.

In terms of financial knowledge, RMSC courses provided me with a deep understanding of various kinds of financial products and exotic derivatives, rather than merely descriptive financial knowledge. For instance, CBBC (Callable Bull/Bear Contract), Variance Swap and other 'real-world' products were covered in these courses. Although stochastic calculus and the pricing of exotic derivatives might not have been much use in my internship work, studying these topics helped me to understand the nature and the background operations of these structured products. Surprisingly, these lessons facilitated my adaptability at the bank and smoothed the process of developing automation and process improvements.

Overall, this one-year internship gave me a glimpse of real-world practices and an opportunity to transfer what I have learnt in the RMSC courses to the workplace. Again, I am most grateful to UBS AG and the Department of Statistics for this opportunity and for their support.

Michelle Liu



HSBC

Last year, I joined the Global Risk Analytics Department at HSBC as an intern, where I worked directly with the Wholesale Portfolio Analyst Team. It was an awesome and valuable experience.

During my internship period, I was involved with the implementation of credit risk models such as point-in-time probability of default models. This experience gave me an opportunity to learn about real-world model development, which is much more complex and challenging than what I had encountered in my studies. Second, I performed different quantitative analyses using real-world financial data and helped to update the Python codes for macroeconomic variable transformation and single-factor analysis. These experiences enhanced my abilities to perform

analyses and write code. Moreover, the cultural diversity in the working environment strengthened my interpersonal and communication skills. As my team included not only local colleagues but also colleagues from India and Guangzhou, I had the opportunity to communicate with people from diverse backgrounds.

Our RMSC curriculum was an important factor that helped me to secure this internship. The integrated curriculum has helped me to gain relevant knowledge of finance, statistics, mathematics, and programming. Building models and performing analyses involve plenty of knowledge that has been covered in previous courses, such as regression modelling, coding on the R and SAS platforms, time series, and stochastic calculus.

The internship at HSBC has given me a true insight into real-world applications and provided a valuable opportunity for me to apply the knowledge learned from my university studies to a real-life situation. I am most grateful to HSBC and the Department of Statistics for this opportunity and for their support.

Internship Sharing

Yanqi Mao
Risk Analytics Stream



Credit Suisse

Last summer, I attended a 10-week internship at Credit Suisse's Markets division in Hong Kong, which was a highly fruitful experience. First, I learnt a lot about the structured products that the bank offers, such as equity linked notes and credit derivatives, which are much more complex than what I was taught about them at school. I also gained a deeper understanding of financial markets through tasks such as preparing informational material on market updates. Second, this experience deepened my interest on the aspect of selling. The company organised many guest lectures, in which managing directors were invited to share insights into their businesses. I also spoke with many full-time employees across the trading floor to get a better understanding of what their teams do. Moreover, the cross-cultural environment enabled me to improve my interpersonal and communication skills. Because Credit Suisse is an international investment bank, I had the opportunity to interact with people from diverse backgrounds during the internship. At the end of my internship, I delivered a final presentation to full-time employees and answered their questions.

The RMSC curriculum helped me to secure this opportunity and stand out during the internship. The well-balanced curriculum equipped me with the necessary knowledge of statistics, finance and programming. The RMSC courses also provided me with fundamental knowledge of derivatives and their pricing. In addition, the one-credit courses sharpened my presentation skills.

Vincent Mok



Reinsurance Group of America

I was honoured to have the opportunity to work for the Reinsurance Group of America as an actuarial intern in the product development team. This reinsurance company provides new business solutions to clients. During my internship, I assisted my team with new business development initiatives, which provided me with valuable experience.

First, my major task as an intern was to provide actuarial support for product development initiatives. I calculated the incidence rate of the new benefit that we proposed and produced the distribution for the insured across different issue ages. Then, I used the incidence rate to determine the net amount at risk and maximum limit of the quotation and to draft the pricing document for the quotation team. I also was able to develop a prototype for a new insurance product targeted at young professionals, which was the biggest challenge that I faced during my internship. I had to determine the needs

of young professionals and suggest a solution for them. It took me almost a month to set up the product features and pricing direction for the team. In addition, I conducted research on modelling new business ideas and helped the local pricing team to validate assumptions regarding critical illness. Last, but not least, our team members gave me a lot of support throughout my internship, and I was pleased to work with them.

The RMSC programme has equipped me with solid knowledge of statistics, actuarial science, and finance, which played an important role in my ability to gain this internship opportunity as survival functions, probability theory, and the time value of money are frequently used in pricing. Therefore, I am grateful to be a student at RMSC, which provided me with strong support during my internship journey.

Iris Tse



PwC

My work in a 6-month risk consulting placement programme at PwC was a cherished experience. This internship programme provided me with a unique opportunity to work with a risk consulting team on real business problems, develop insights, and gain first-hand, real-life exposure to the challenges and daily tasks of a consultant.

Majoring in RMSC helped me significantly during my internship at PwC. The integrated curriculum exposes us to a wide range of topics, including risk management, statistics, finance, and computer science. During the manager interview session, we explored different topics such as derivative pricing, regression modelling, coding, and understanding of risk, most of which had been covered in my previous RMSC courses. Throughout my internship, I participated in eight projects that focused on three key topics: recovery planning, IBORs model assessment, and standard approach: counterparty credit risk. The theoretical knowledge that I acquired during my RMSC courses played a crucial role in these projects.

Through a wide variety of project experiences during my time with the risk consulting team at PwC, I had the opportunity to understand and quantify risk exposures and build risk models, focusing on the areas of credit risk, liquidity risk, and market risk. I also had the chance to support clients with their pressing regulatory challenges by reviewing and developing their internal policies, implementing process improvements, and providing proactive recommendations. Each project allowed me to constantly learn new knowledge and hone different skills. I also improved my understanding of what I had learned in the RMSC courses and gained practical experience. I believe that all of the career skills I have learned will be helpful for my future career in the risk consulting industry.

Overall, this internship experience was beneficial for me, as it enabled me to develop risk consulting skills early in my career while gaining practical experience alongside leading professionals. I am grateful to PwC and CUHK's Department of Statistics for this internship opportunity and for all of their help and support.

Trix Zhang



Deloitte

I joined Deloitte HK Risk Advisory Cyber as an intern in the Architect & Engineering Team. During my internship, I assisted in various projects ranging from a technical review of a client's network infrastructure via independent assessment to remediation of a client's internal governance on information security risk management through policy design. While giving my recommendations based on the findings from my assessment, I genuinely felt that I was assisted by the risk management mindset I gained during my undergraduate education as an RMSC student.

Working in this division involved assessing clients' cybersecurity risks, developing strategies to mitigate those risks, and implementing cybersecurity solutions, which are the core concepts of risk management as I had learned since the very beginning of my RMSC coursework. As in any job, working at Deloitte Risk Advisory Cyber had its own unique sets of challenges and rewards. The work was fast-paced and challenging and required a high level of attention to detail and up-to-date cybersecurity information. However, the benefits I have gained cannot be neglected. They include exposure to a variety of industries (from local banks to overseas technology companies or even luxury brands), opportunities for professional growth, and the ability to make a positive impact by helping clients to safeguard their valuable data. Besides, Deloitte also provides a platform for employees' global knowledge exchange, as well as support for certificate-related training.

Risk management science provides a framework and methodology for assessing and managing risks in a variety of contexts, including cybersecurity. By applying risk management principles and techniques to cybersecurity, I can better understand and manage the risks associated with information systems and data. These skills allow me to assist clients to make informed decisions about how to allocate resources and prioritise cybersecurity initiatives.

Throughout my internship, I not only gained cyber knowledge from the company and my beloved colleagues but also realised how important and necessary risk management is in every field, not only in quantitative finance. I'm grateful to be able to study in my faculty and to have been given the chance to work at Deloitte and actually assist a real business using what I have learned.

Exchange

Students can participate in student exchange programmes organised by CUHK. The University and Colleges offer more than 280 student exchange programmes. For details of the University-wide exchange programmes, please visit the homepage of the Office of Academic Links at <http://www.oal.cuhk.edu.hk>.

Some notable destinations of the University-wide exchange programmes are listed below.

University-wide Exchange Programmes

United States

- University of Washington
- University of Wisconsin-Madison
- University of Pennsylvania

United Kingdom

- King's College London
- University of Aberdeen
- University of Cambridge
- London School of Economics

Australia

- The University of Queensland
- The University of Melbourne

Europe

- Universite Paris 1 Pantheon – Sorbonne
- Humboldt-Universität zu Berlin
- University of Helsinki

China

- Tsinghua University
- Fudan University

Japan

- Kyoto University
- Waseda University

Singapore

- National University of Singapore
- Nanyang Technological University

South Korea

- Seoul National University
- Ewha Womans University

Taiwan

- National Tsing Hua University



Academic year	2022-23	2021-22	2019-20
Number of students participating in exchange programmes	11	7	11

Exchange Sharing

Chloris Cheung

Uppsala University, Sweden



On 17 January 2020, I embarked on my journey to Uppsala University in Sweden. Despite having learnt about and been in touch with the outside world through the internet, I had never actually visited a Western country. Sweden is one of the Nordic countries, and the concepts of gender equality, environmental friendliness and social responsibility are everywhere. I still remember the amazement I felt when I heard that it is common for a man to be a stay-at-home dad and that it could be considered impolite for a man to hold the door for a lady. There were second-hand shops and zero-waste apps everywhere. Students from nearby countries had spent an extra twenty hours getting to Sweden by taking an expensive train instead of flying just to be environmentally friendly and responsible to our planet. You first experience these tiny details, and as they accumulate, you gradually realise the amazing cultural differences. I visited many cities and museums, and I started reading European history to get to know more about the places I had seen. Uppsala University has many exchange students, which allowed me to cultivate a sense of global citizenship by making friends from all around the globe.

Academically, I studied Multivariate Analysis, Time Series and other subjects, and I lived in a student hostel with a shared corridor. The lessons were not very different from those in Hong Kong, but I enjoyed how practical they were because we were asked to complete real time series analysis projects in the assignments. I feel that I learnt much more from undertaking these step-by-step projects than I did from the lectures, as they built up a map of connections in my brain and helped me to really absorb what I studied.

Overall, my journey to Sweden was way beyond my expectations. I was worried that it would be a boring country without many activities, but I found that, although it might not have the huge shopping malls and convenient lifestyle of Hong Kong, the harmonious and simple lifestyle in Sweden is so comfortable and relaxing. It really was a very pleasant journey.

Mei Han Lee

University of Waterloo, Canada



During the first half of 2022, I went to Waterloo, Canada, for an exchange programme. There are a few reasons why I chose the University of Waterloo. First, I had never been to Canada and had heard that Canada is a beautiful country with cherry blossoms in spring, waterparks in summer, colourful maple trees in autumn and snow in winter. The people are also known to be nice. Second, the University of Waterloo is known for mathematics, and it provides many courses related to my major such as risk management, statistics and finance.

I would like to share a few glimpses of my experience. My favourite course in the University of Waterloo was STAT 443 (Forecasting). This course taught us various models, methods and theorems to forecast the future using historical data, and the assignments, projects and exams required both theoretical and practical skills. In the beginning, I found the course difficult because it required a sophisticated level of coding in the R programming language, which I was not quite familiar with. The professors typically did not provide all of the code for every model, and instead required the students to write and explore the code for themselves so as to understand the models thoroughly. Although this was time consuming, there was a great sense of accomplishment when I finished these challenging assignments.

For the course project, in which we had to forecast future trends in the CAD/USD exchange rate, I was in a group of four students. All four of us were from different countries, and I was amazed at how international Canada is, and that I can meet people from all around the world. The project was not too difficult to complete, and it allowed us a lot of flexibility in modelling the data. After completing the project, I thoroughly understood the theories taught in the course as it gave us an opportunity to apply them in our daily lives. The actual application of the theories enabled me to acknowledge the power of statistics.

I am grateful that I received this opportunity for academic and cultural exploration, especially considering the uncertainties during the pandemic. The exchange experience provided me with many unforgettable memories and enabled me to step out of my comfort zone to learn more about myself and the world outside of my hometown.

Exchange Sharing

Ruiqi Mao

University of Massachusetts Amherst, US



I am honoured to be one of this year's recipients of the Undergraduate Student Overseas Exchange Sponsorship Scheme 2019/20 provided by the Department of Statistics. I am writing to express my sincere appreciation for the generous support of the Department.

I attended the University of Massachusetts (UMass) Amherst for a term-long academic exchange. During the semester, I took four courses offered by the departments of finance, economics, and philosophy. In addition to my academic pursuits, I was actively involved in several extracurricular activities, through which I was able to broaden my horizons and experience different cultures. Having had so many opportunities to communicate with people from all over the world with significantly diverse backgrounds, I learnt that it is always important to listen to the experience and views of others, and then to use this knowledge to enhance our own perspective. After the exchange, I will continue to study in CUHK while preparing to apply for graduate schools.

I participated in a number of extracurricular activities at UMass, and I would like to highlight one that comprised a series of seminars on the theme of inclusiveness. The seminars aimed to help students engage with issues of diversity and inclusion in business through participation in the Inclusive Leadership Summit. It seemed natural for me to be inclusive at the beginning, but I did not realise then how different identities affect people's careers and lives in society. The different races in the U.S. – White, Black, Asian, Latino and others – have made great efforts over a long period to fight for equal rights and respect. I learnt that we should avoid using certain misleading expressions in business situations, such as using 'sexual orientation' instead of 'sexual preference'. Although it may seem trivial, these details reflect one's sensibilities. This activity, together with other experiences such as traveling to New York City, Philadelphia, the Grand Canyon and California, enriched my exchange experience and broadened my perspective.

Altogether, the exchange opportunity has helped me to establish a solid foundation on which to build my future.

Ling Poon

Danmarks Tekniske Universitet, Denmark



I am glad to have had the opportunity to go to Danmarks Tekniske Universitet (DTU) for a term-long exchange. I met people from diverse cultural backgrounds and gained knowledge of statistics and computer science from top-tier teachers.

Academically, during my time at DTU, I took computer science and statistics courses and focused on topics that I considered practical and interesting, like machine learning, discrete mathematics and software engineering. The teaching method at DTU is vastly different from that of the RMSC Programme at CUHK. The teaching staff encourage cooperation and experiential learning by placing a heavy focus on group work and projects. I learned a lot through this teaching approach. I am fortunate to have had very proactive, cooperative and capable group mates. Our group work was enjoyable and its outcome was good. The group projects simulated the workplace environment to a large extent. I now feel very confident and comfortable in communicating and cooperating with others for academic or work purposes.

Of the various courses I took, the machine learning course interested me the most. I worked with international students on a group project in which we predicted film ratings. Although we did not find an accurate model, we gained experience of applying machine learning to real-life problems. This stimulated my interest in data science and encouraged me to learn more about and find real-life applications for data science principles.

Socially, in the first week I was welcomed by a buddy group composed of old and new students from various countries, very similar to "O Camp" at CUHK. They were fun and very friendly.

The exchange was very rewarding, and I am grateful to the Department of Statistics for providing a scholarship to support students' personal development through this experience.

Chun Hei Tse

University of Toronto, Canada



During the winter term, I had an incredible opportunity to participate in an exchange programme at the University of Toronto (U of T). As part of this enriching experience, I enrolled in a selection of stimulating courses that expanded my knowledge and skills. The courses I took included Introduction to Machine Learning, where I gained a comprehensive understanding of the fundamental principles and algorithms used in this exciting field. In this course, I collaborated with classmates from diverse ethnic backgrounds on a project about building neural networks. This experience not only enhanced our problem-solving skills but also taught us the importance of cultural diversity in our academic pursuits.

Additionally, I took Statistical Computation, which equipped me with valuable tools for data analytics. One challenge that I encountered in this course was adapting to a discussion-based lecture. This teaching style, which required pre-reading before each class to actively participate in discussions, was different from what I was accustomed to at CUHK. To overcome this challenge, I developed a disciplined routine of pre-reading and invested my time and effort to understand the mathematics literature before each lecture. I actively engaged in discussions, sought clarification from the professor, and collaborated with my classmates. This experience taught me the importance of adaptability, time management, and active learning. It also reinforced the value of critical thinking, effective communication, and independent learning. Ultimately, this challenge strengthened my resilience and expanded my academic horizons, preparing me for future challenges.

Beyond academics, I actively engaged in campus life by joining the D2 Soccer team at Trinity College. This allowed me to immerse myself in the vibrant sports culture at U of T and participate in the U of T Intramural League. Being part of the soccer team not only honed my athletic abilities but also fostered teamwork, discipline, and perseverance. It was an exceptional opportunity to connect with my fellow students and build lasting friendships.

Ken Wun

Royal Melbourne Institute of Technology, Australia



It is my pleasure to share my memories of the 2018-2019 exchange programme. Last term, I travelled to the Royal Melbourne Institute of Technology (RMIT) in Melbourne, Australia for a term-long exchange.

At RMIT, I took three courses related to risk management, statistical inference and advanced calculus. These courses were interesting and enjoyable. I really learned a lot, such as how to trade financial products in the real market. The lecturers' teaching skills really impressed me, and the classroom atmosphere was very different from that at CUHK. The teaching staff at RMIT focus on every student's personal abilities; they are willing to communicate with students after class to ensure that each and every one of them is keeping up with the lessons. When students fall behind, the teaching staff provide examples, exercises and tutorials for them instead of just ignoring the problem. Due to the close relationship between teachers and students, RMIT students are very proactive; they ask many questions during lectures. I really appreciated my professors' help, and I learned a lot from them.

Apart from studying, I travelled to many places in Australia, such as Tasmania, Sydney, Brisbane, the Gold Coast and Cairns. I tried so many new things, such as skiing, taking a road trip and camping in the desert. I also went scuba diving to see the coral in the Great Barrier Reef. Unfortunately, water pollution has caused coral bleaching for the last ten years. My instructor told me that if the situation does not improve, the Great Barrier Reef will soon disappear. This memorable experience reminded me of the importance of protecting the environment.

I wish to express my sincere gratitude to the University for its support and assistance during my exchange studies. This experience not only gave me the opportunity to explore the world and develop a global mindset, but also made me more independent and equipped me with the strength to overcome difficulties. I am grateful to have had such an invaluable experience of living and studying in a foreign country.

Alumni Sharing



Carlos Au-yeung

BSc in RMSC 2013

**Market & Liquidity Risk Associate
Banco Santander**

Recent economic instability has highlighted the growing importance of risk control for financial institutions and regulatory agencies. The RMSC Programme offers comprehensive training in risk analysis and is very helpful for students who want to pursue careers in the financial industry. The programme also provides students with a career counselling service, internships and research opportunities, ensuring that they can make informed decisions about their career directions after graduation.



Vincy Chen

BSc in RMSC 2015

**Operations Analyst
Goldman Sachs**

The Risk Management Science Programme provides intensive qualitative and quantitative training in risk analysis, which is extremely valuable given the volatility of the financial market and tightening of regulatory control.

The programme is challenging but certainly rewarding for those who take the opportunity to develop their skills. It provided me with the analytical skills and mind-set needed to approach problems effectively and find solutions.



Kam Kwok

BSc in RMSC 2018

**Risk Analyst
BNP Paribas**

The RMSC Programme covers an array of subjects, such as statistics, mathematics, economics and finance. The well-designed courses and practical training help you develop solid analytical and technical skills. On top of that, I strongly encourage students to go on an overseas exchange trip. This will give you the opportunity to broaden your horizons and improve your soft skills, which are particularly helpful at work. With the sheer variety of choices it offers, the programme can show you directions you never knew existed and help you discover your own career path.

After graduation, I joined BNP Paribas as a risk analyst. This role exposes me to a variety of risk areas. Undoubtedly, the RMSC Programme helped me to reach the point I am at now, from outsmarting others during job hunting to excelling at my daily work. The technical skills I learned enable me to contribute to various areas, such as credit risk, market risk and automation, and my soft skills help me communicate with people across the globe in this multinational bank. Working in a bank, I have seen a growing demand for risk specialists and people with a risk-aware mind-set. If you are interested in quantitative analysis and keen to join the financial industry, this programme is for you.



Carol Yin

BSc in RMSC 2016

**Quantitative Research Analyst
McKinsey Investment Office**

The RMSC Programme provides thorough training in theoretical knowledge, such as topics in statistics and math, and in practical applications, such as simulations. The cohort is small but close, and I received significant help from my professors and classmates. After graduating from RMSC, I gained an employment opportunity with the EY Quantitative Risk Advisory team through an RMSC alumnus.

The programme prepared me well for my career after graduation and for obtaining an advanced degree in Computational Finance at Carnegie Mellon University. After graduating from CMU, I decided to continue to explore the field of quantitative finance and joined McKinsey Investment Office as a Quantitative Research Analyst.



Yiran Huang

BSc in RMSC 2015

**Product Developer and Manager
UBS**

I graduated from the RMSC Programme in December 2015 and started my career as a data analyst in the consulting industry. In July 2016, I joined UBS as a graduate trainee in group risk. The trainee programme offered me many rotation opportunities in the risk control functions of investment banking, wealth management and asset management. The solid quantitative skills and extensive financial knowledge I had gained from the RMSC Programme enabled me to succeed in all of the rotations, through which I formed a comprehensive view of UBS Group. After the trainee programme, I chose to become a product developer and manager in UBS Asset Management. An important part of my job is performing competitor analysis, and I am able to leverage the strong data analytics foundation provided by the RMSC statistics curriculum. In sum, the RMSC Programme equipped me with the wide-ranging knowledge and rigorous thinking ability I need to work with various functions and businesses within the financial industry.



Jason Lau

BSc in RMSC 2017

**Valuation and Risk Controller
BNP Paribas**

The RMSC Programme provides solid quantitative training in statistics and mathematics and interdisciplinary knowledge of finance, economics and computer science. In addition to the well-rounded curriculum, students engage in projects and internships during which they can use their theoretical knowledge to solve real-life risk management problems.

This programme gave me a huge advantage in my current role as Valuation and Risk Controller at BNP Paribas. The wide product knowledge and good understanding of risk sensitivities that I gained from the programme enable me to effectively carry out my daily tasks: monitoring risk limits and escalating excess to the front office. The programme's rigorous training in derivatives pricing also gave me an advantage in the area of valuation.

Risk Management
Science
Programme

風險管理科學課程



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