



香港中文大學  
The Chinese University of Hong Kong



Interdisciplinary Major Programme  
BSc in QUANTITATIVE FINANCE AND  
RISK MANAGEMENT SCIENCE  
計量金融學及風險管理科學  
跨學科主修課程

FACULTY OF BUSINESS ADMINISTRATION  
商學院

FACULTY OF SCIENCE  
理學院

Interdisciplinary Major Programme  
QUANTITATIVE FINANCE AND  
RISK MANAGEMENT SCIENCE (JS4276)

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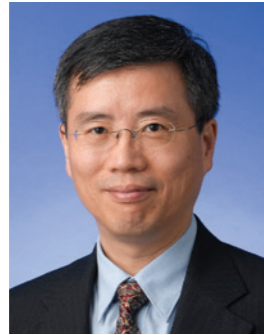
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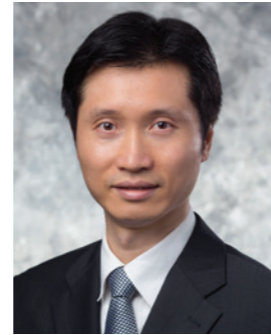
## MESSAGE FROM PROGRAMME

In light of the recent economic boom in the Asian Pacific Region, providing more tailor-made financial services and quantitative analysis on the underlying commercial activities are of ultimate importance to our rapidly changing community.

In this respect, CUHK continues to play the most critical role in training the future elites with diverse knowledge and skills to best adapt to those challenges and help to maintain Hong Kong as the major economic hub in the region. On the one hand, our world-renowned Business School has the longest history of success and has established a very well-equipped financial laboratory in close association with both financial and government sectors in Hong Kong. While on the other hand, our Faculty of Science also has a massive group of world-leading scientific scholars, including Nobel Laureates, Fields Medalists, and Academicians of Chinese Academy of Sciences, who play frontier roles in all areas of sciences and technological research. With their expertise across multiple disciplines, we can cultivate a cutting-edged learning environment and unique stimulating educational experience. Our Programme aims to nurture talents with both academic excellence and highly relevant soft skills to meet the growing demands in Hong Kong, mainland China and the rest of the world. Over the past few years, our students have acquired a broad exchange experience in various prestigious universities around the globe. Our Programme has also established strong networks and partnerships with the finance industry.



Professor Fan Kin Keung Dennis  
Associate Dean (Undergraduate Studies)  
Faculty of Business Administration



Professor Wong Hoi Ying  
Associate Dean (Student Affairs)  
Faculty of Science

## OVERVIEW

The Programme is jointly administered by the Department of Finance and the Department of Statistics at the Chinese University of Hong Kong. It combines the strengths and features of two well-established and highly successful programmes from the respective departments: the Quantitative Finance programme and the Risk Management Science programme. The Programme is consistently ranked top among all quantitatively related programmes in Hong Kong in terms of admission credentials.

As a major financial service centre, Hong Kong has a growing demand for professionals with both quantitative finance and risk management science background. The Programme provides state-of-the-art training in business and finance, risk management science, mathematics and statistics, and computing applications. By offering comprehensive academic and professional training, our Programme aims to nurture competent finance and risk management professionals who can work in investment banking, corporate and commercial banking, consulting, accounting and financial services, as well as in general management in the financial and government sectors. With our official tailor-made coaching schemes, students are also encouraged to participate in overseas exchanges and internships.

The Programme has established strong networks and partnerships with the finance industry over the years. Outstanding performance during internship renders strong motives for companies to offer them permanent positions upon graduation. The Programme also enables students to build up a solid theoretical background for pursuing further study, at the Master or PhD levels, in economics, finance, actuarial science and insurance, mathematics, statistics and risk management science.

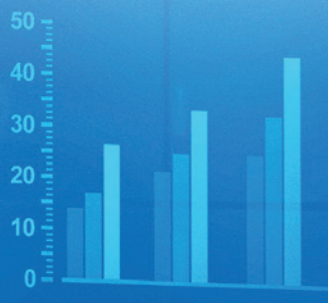


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Statistics

# ADMISSION REQUIREMENTS

The minimum criteria for applications are four core and two electives in HKDSE with the following requirements:

- Level 3 or above in Chinese Language,
- Level 3 or above in English Language,
- Level 3 or above in Mathematics,
- Level 2 or above in Liberal Studies,
- Level 3 or above in any two elective subject,



Remarks:  
 1. M1 or M2 is counted as an elective.  
 2. Double weight in English.  
 3. Double weight in M1 or M2.

## JUPAS ADMISSION GRADES

2014 Entry

Admission Figures	CHIN	ENG	MATH	LS	M1/M2	Best Elective	2nd Elective
Upper Quartile	5	5	5**	5	5**	5**	5**
Median	5	5*	5*	5	5*	5**	5**
Lower Quartile	5	4	5**	4	5**	5**	5**

2015 Entry

Admission Figures	CHIN	ENG	MATH	LS	M1/M2	Best Elective	2nd Elective
Upper Quartile	5	5*	5**	5	5*	5**	5*
Median	5	5*	5*	5**	5*	5*	5*
Lower Quartile	4	5	5**	5	5**	5**	5**

2016 (as of 8 August 2015)

Admission Figures	CHIN	ENG	MATH	LS	M1/M2	Best Elective	2nd Elective
Upper Quartile	5	5	5**	5	5**	5**	5**
Median	4	5	5**	5	5**	5**	5*
Lower Quartile	4	5	5*	5*	5*	5**	5*



# COURSEWORK REQUIREMENTS (SUBJECT TO REVISION)

## FACULTY PACKAGE

- University Mathematics
- Economics for Business Studies I & II

## QUANTITATIVE FINANCE

- Financial Markets
- Investment Analysis and Portfolio Management
- Financial Management / Financial Management: Foundations and Analysis
- Foundations in Financial Accounting / Introductory Financial Accounting
- Risk Management and Insurance

## MATHEMATICS AND STATISTICS

- Linear Algebra I
- Advanced Calculus I
- Basic Concepts in Statistics and Probability I & II
- Introduction to Stochastic Processes
- Applied Regression Analysis

## RISK MANAGEMENT SCIENCE

- Introduction to Risk Management
- Simulation Methods for Risk Management Science and Finance
- Statistical Modelling in Financial Markets

## COMPUTING APPLICATIONS

- Computer Principles and Programming (C / C++ / Java / Visual)
- Business Information Systems / Data Structures and Applications / Fundamentals in Information Systems

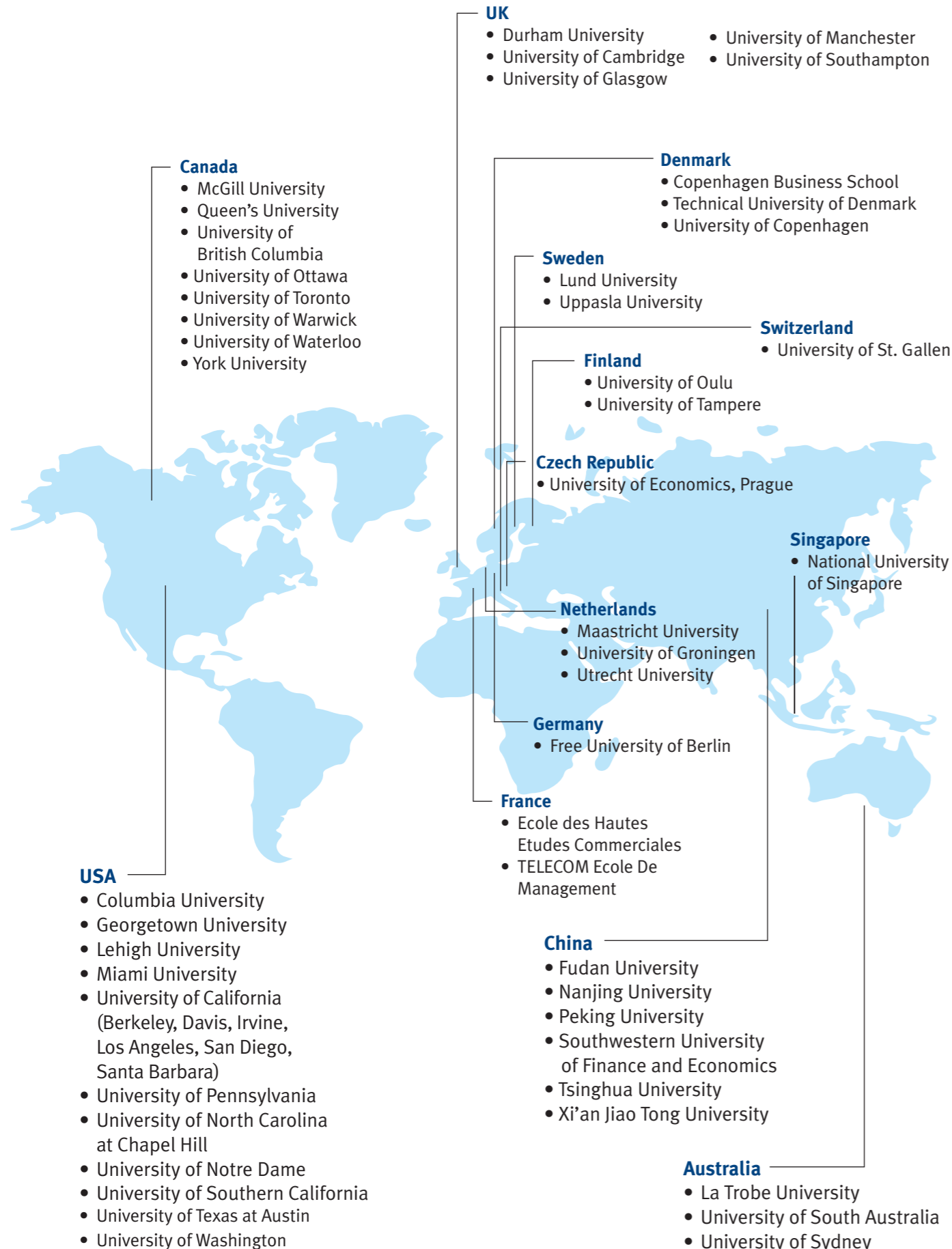
## ELECTIVE COURSES

- Banking and Finance Practicum
- Practicum
- Corporate Finance: Theory and Practice
- Multivariate Techniques with Business Applications
- Actuarial Science
- Stochastic Calculus for Finance and Risk
- Time Series
- Risk Management with Derivatives Concepts



# OVERSEAS EXCHANGE

QFRM students are encouraged to study and experience life in overseas universities. Over 85% of our students had exchange experiences and they participated in exchanges with universities around the world. Previous students' exchange places include:

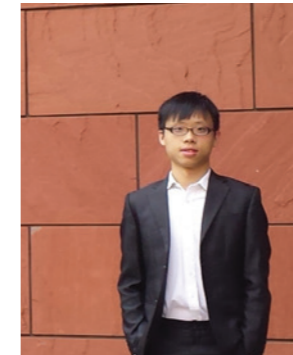


# STUDENT EXCHANGE EXPERIENCES

## WHARTON SCHOOL, UNIVERSITY OF PENNSYLVANIA

### 1. ROY CHAN

Spending one year as an exchange student at the University of Pennsylvania was an enlightening experience.



Travelling around the US to places like Niagara Falls and the Grand Canyon gave me the opportunity to see more of the world, while joining extra-curricular activities such as the investment and trading group and the econometrics reading group helped me make new friends and expand my social circle.

The course I took at the University of Pennsylvania was very challenging, but the QFRM programme equipped me with the quantitative skills and mathematical background necessary to prepare me for the graduate-level courses in finance offered to Wharton's PhD students.

I also gained research experience by participating in a financial econometrics project, in which I learned more about pioneering research in the field of realised volatility and applied statistical knowledge to real-world research.

### 2. KAREN LI

I am so lucky to have gotten the chance to be an exchange student at the Wharton School in my junior year. The Wharton School is literally the most international environment I have ever been in. The Wharton exchange programme invites about 200 students from 19 different countries and regions all around the world every year.



I shared a room with two amazing girls from Dubai and Belgium, and we had a great time together. It's so exciting to get along with people from all around the world. In addition to the international environment, Wharton also offers various interesting courses. There are more discussions and interactions in class. I definitely recommend courses with group projects or discussions where you can meet other intelligent students in class. The Wharton School is a great place for everyone to reach out to the unfamiliar and finally find the truth about the world and ourselves.

## UNIVERSITY OF CALIFORNIA, BERKELEY

### 1. RYAN LIU

Studying abroad has always occupied the top spot on my to-do list for university, and it has not disappointed me by any means.

Over the past semester, I studied at the University of California, Berkeley as a statistics major in the land of liberty. As a highly competitive programme in a top-notch school, it was really a challenging yet rewarding experience.

I could spend hours talking about the unique culture of this world-renowned institution, but the first thing that springs to mind should be its prominent position in the history of educational and political freedom. Cal. Berkeley has embarked on a voyage of student activism all the way since the Free Speech Movement, and it has planted its roots deep in the soil of liberty. Booths including those of fraternity and sorority house are found every day on the crowded Sproul Plaza, and the student-run DeCal courses are perfect testimony to the flat bureaucracy operating between the school and the students.

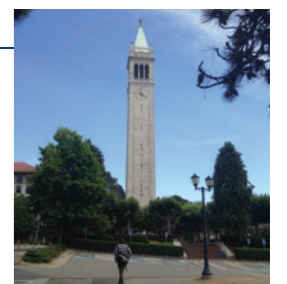


Cal has long been nurturing leaders for society in streams ranging from politics and economics to philosophy and science. Describing the study atmosphere as scholastic will surely not be doing Cal justice, as you can indulge in thought-provoking discussion even after class in any corner of the campus as you like. Even for independent courses like Math and Statistics, discussion sections are what make the subject fun. Truth be told, I found students in the States much more willing to participate in discussions, heated at times, and I genuinely enjoyed the interactive sections a lot. Most of the time, it is not the technical skills taught in class, like Newton methods in Numerical Analysis or non-cooperative game theory in Mathematical Economics, that appeal me, it is the process by which the complex theories are derived in class that caught my passion.

Saying my dream has been fulfilled is an understatement. But for now, I will chase a following dream, a much bigger one – a master's degree in the United States – to continue my unwritten story in an exotic land.

### 2. AMY YANG

I stayed at the University of California, Berkeley (UCB) for one year after joining the CUHK exchange programme. UCB provides a variety of exposures so that everyone can find his own place there. In addition to taking a graduate-level financial engineering course, I worked as a research assistant for an economics professor and gained more insight into academic research. Berkeley organised various social events for exchange students and gave me the initiative to build relationships with people from different cultural backgrounds.



# STUDENT EXCHANGE EXPERIENCES

## UNIVERSITY OF CALIFORNIA, IRVINE DICKSON YIP

I am very glad that I was able to spend my second year at the University of California in Irvine: I had tons of chances to explore new things, and to experience new knowledge, new people and a new life!



With a solid foundation from the CUHK, I was able to further my studies in mathematics, statistics and finance through advanced courses. However, studying abroad is more than just learning. I was fortunate enough to have the opportunity to be a team member of a Student Managed Investment Fund, an association that manages real money for an institution. I learned a lot of practical skills in investment and wealth management through working in the team. I will never forget how I worked through the night with my teammates every week!

## THE UNIVERSITY OF TEXAS AT AUSTIN CHARLES TSUI

Going on exchange is not just studying overseas; it was life changing for me. Over the five months I spent in the US, I would say I changed my mindset towards learning and my attitude of exploring the world. I was so glad to have applied for an overseas exchange programme at the University of Texas at Austin. It gave me a great chance to meet foreign friends. People I met there were extremely helpful to international students, and I could tell they were trying their best to offer advice to help us adapt ourselves to a new environment. Travelling for a half month in Mexico and Guatemala made me grow a lot as well. To be honest, the trip was not easy for me as it was sometimes hard to find someone who spoke English in the smaller cities. Yet being the most adventurous part of my exchange study, it enabled me to truly immerse myself into a culture that was not easily accessible when I am living in a big city like Hong Kong. I will definitely encourage others to grab the chance, go on an exchange and explore something different in your life.



## GEORGETOWN UNIVERSITY TAK YIU CHEUNG

I went on exchange at Georgetown University during Term 2 of my second year of study.



Apart from taking math courses that were related to my major, I also decided to take a course in their world-famous department of political science. I found the course both eye opening and challenging, and in the process of reading course materials and doing research for a 20-page essay, I learnt a lot about the history of various countries and how it came to shape their current political systems.

Although I was previously aware that sports are huge in America, I was still surprised by how it permeated every level of their culture, from the popularity of sports bars to the occasional sports reference in everyday conversations. I realise that whilst you can read about other cultures, there is still no better way to truly understand them than to experience them for yourself.

## UNIVERSITY OF NORTH CAROLINA AT CHAPEL HILL JESSIE LI



I am Jessie, a year three QFRM student. I am very happy to share my exchange experience with you, and hope it will be useful during your studies at CUHK.

I applied for a one-semester overseas exchange study in year one, and began my exchange life at the University of North Carolina at Chapel Hill last semester. My four months in the US were awesome, and an unforgettable and precious memory for me. I enrolled in five courses there, all of which can be transferred back to CUHK. Besides academia, we enjoyed our time with local students – went to parties, travelled to many cities and often drove to the beach. Believe me, these exchange experiences will change your outlook on university study and different cultures, and may even lead you to rethink your plans for the future.

So, if you have the chance, you should definitely apply for exchange study, and make your university life fuller and more colourful.

## UNIVERSITY OF NORTH CAROLINA AT CHAPEL HILL SHI-YU SONG

How does an exchange experience make a difference to your university life?

Different cultures, study experience and travelling around will give you a great exposure to something you may never know! In the last semester, I went on exchange at the University of North Carolina at Chapel Hill, where I experienced something completely new.

I met great friends with different backgrounds and culture. My roommate was from Italy, my other two suitemates were Canadian and Korean. The study experience was completely new to me, but luckily I adapted quite well. Travelling around was also something you must do. Watching a basketball match or attending a small concert near your exchange university were some good suggestions.



So try to experience something new whenever you have the chance!

## UNIVERSITY OF WATERLOO TIMOTHY NG

During the third year of my studies at CUHK, I was very fortunate to be given a chance to join the exchange programme of the University of Waterloo in Canada.



The lifestyle in Waterloo is completely different from Hong Kong. People sleep earlier, work fewer hours and never rush. Spending four months here was very relaxing because of the spacious and tranquil environment. Sitting in a coffee shop, leaving all my problems behind and seeing the snow fluttering outside was one of the most enjoyable moments, which you could never experience in Hong Kong.

The exchange is not just an opportunity to study in a different country, but also to mingle with students of different nationalities, assimilate into different cultures and become more independent, as you are on your own in a brand new environment.

The four months of exchange brought me so many different experiences, and they will never be wiped from my memory. I hope you will enjoy yours as well!

## UNIVERSITY OF NOTRE DAME JERRY WANG

I joined a one-year exchange programme at the University of Notre Dame last year, which was definitely an unforgettable experience for me. It is a Catholic university in the United States,



and they held a mass every week in the dorm I lived in. There you could share your happiness with others and also learn from them, and it helped me become involved in the local student life. The University of Notre Dame is also famous for its sports, with one of the best football teams in the country. I joined a family partner programme hosted by the university that aims to build relationships between international students and local American families. Through this programme, I discovered that people there are very friendly, and I learned about the local culture in great depth.

## QUEEN'S UNIVERSITY WOODY WONG

The exchange experience at Queen's University was really fruitful. I widened my social circle and also broadened my horizons. I lived with four very nice local students. Their lifestyle and ways of socialising were different from ours. They loved to organise parties and have gatherings of friends at their house. On Saint Patrick's Day, I participated in the celebration by wearing green. To further immerse myself in their culture, I also went to see an ice hockey match, the most popular spectator sport in Canada. It was interesting to interact with Canadians, and to try and understand their ways of thinking and adopt their mindset. I felt very different when I tried to do this.



# STUDENT EXCHANGE EXPERIENCES

## UNIVERSITY OF TORONTO

### 1. CHRIS YUE

There is no doubt that my time on exchange at the University of Toronto was an amazing and unforgettable experience. The academic atmosphere was competitive and impressive, and I gained insight into the global economy through discussions with Canadian students. Of course, I travelled a lot in Canada, and went to Toronto, Ottawa, Montreal, and Yellowknife. I saw the wonderful beauty of that land and the unbelievable fantasy that is the aurora borealis. I also felt the kindness of the people there. This exchange experience enabled me to make many friends from different cultural backgrounds, and develop valuable social and professional networks for the future.



### 2. SIMON YUAN

My exchange trip to the University of Toronto was dynamic and exploratory. I had many unique experiences during my school life there, such as attending an astronomy class with more than 1,000 classmates and taking business courses that involved much more discussion and interaction than here in Hong Kong. One great thing about Toronto is that it is easy to meet people from all over the world. This helps improve our communication skills and broadens our horizons. During study breaks, travelling around Canada and the US was a superb choice. Great transport systems make everything convenient. I went to more than 10 cities, including New York, Boston, Los Angeles, Montreal and Quebec City. Of course, parties are also a part of the trip you don't want to miss.



### 3. KELVIN NG

Going on an exchange programme is probably the most unforgettable experience you can have in your university life. I spent four months from September to December 2014 studying finance, maths and economics at the University of Toronto, Canada. In Toronto, every day was different, and many opportunities opened up. I was exposed to an environment with a very diverse culture, which enabled me to make friends who came from different backgrounds. My flatmates were from Brazil, Germany and Estonia, and they told new stories about their cultures every day. My exchange experience was further enriched through travelling. I visited Montreal, Ottawa, Quebec, New York, Boston and Washington, and fully experienced the North American and Canadian lifestyle and culture. I also travelled to Yellowknife to see the aurora borealis (the Northern Lights), in temperatures below -40 degrees Celsius, which was a once-in-a-lifetime experience. The experience and rewards gained from an exchange programme cannot be easily expressed in words. What I can say is that you won't regret joining the exchange programme while at university.



## UNIVERSITY OF CAMBRIDGE

### HAN XU

The exchange experience in Cambridge is marvellous. With the hope of exploring new possibilities, I took three challenging courses, each of which has either changed my stubborn view towards a specific field that I have already learned, or led me into a fascinating field that I have never noticed before. For instance, Foreign Policy Analysis is my favourite. Frankly speaking, it is quite relaxing to take summer courses in Cambridge, where we do not have to worry too much about grades. It is such a cosy environment, letting us think and discuss freely and spark new ideas. One professor stated, "What I need you to do in my class is not agree with me. Disagree with me. Challenge me." Therefore, I took every class as a chance to challenge the lecturer even though I failed most of the time. But this is the process that inspired me to think and link different subjects like Game Theory, International Relations and Foreign Policy together. For the first time, I gained heightened interest in international affairs such as the Washington Consensus, the Beijing Consensus and the recent 'Grexit' affair. What makes me even more excited is that I am forming my own methodology to analyse what really happens under the surface.

Cambridge is such a magical place, full of inspiration and physical beauty. I like life there, where I can take a lecture at the Botanic Garden with a professor who can barely contain himself with excitement about the obscure rituals of the bumblebee, where I can have my floor mate come round for a beer and barbecue and I can listen to the latest stories of his travels, debate with the grey-bearded professor over ancient Roman history and enjoy a cup of steamed milk with chocolate sprinkles on the top with my favourite friends.



## UTRECHT UNIVERSITY, UNIVERSITY COLLEGE UTRECHT WAI LI TENG

I believe everyone would agree that an exchange programme in Europe wouldn't be complete without travelling and enjoying the laid-back lifestyle. However, now, when I recall my five-month stay in Europe, I am totally surprised at how vividly the academic experience affected me. Having studied in a liberal arts college, it gave me the privilege of taking subjects that I have never imagined myself learning. The content wasn't the only specialty of a liberal arts college, but also how the lecturers stimulate students' interests and contributions in class pinpoints the true value of such college. Hence, I wholeheartedly encourage outgoing exchange students to embrace different learning and ethnic cultures during your exchange sessions. Have a fruitful experience!



## UNIVERSITY OF COPENHAGEN MARCO LUI

Exchange programmes may appear to many people as just an opportunity to travel around without any concerns. To me, the journey of study in Copenhagen meant so much more.

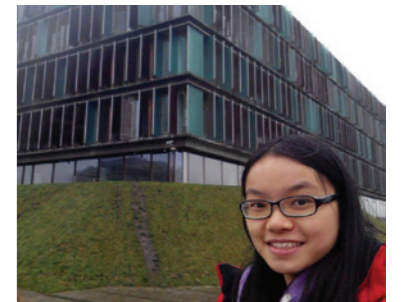
The whole period, from the very first day I got the offer to the day I returned to Hong Kong, was a major challenge to me, both physically and mentally. Lots of preparation had to be done before departure, alongside the excitement and nervousness. Time management was important during the six-month study, as it was impossible to finish all of my goals within the limited time. How to achieve as much as possible, while balancing study and travel, was the biggest challenge for me. At the end of the trip, facing the culture shock of returning to Hong Kong was the final hurdle.

Yet, I still treasure this experience. Making new friends enhanced my social life, while travelling alone made me more independent and broadened my horizons. If you are an explorer or a risk-taker, applying for the exchange is a must, and perhaps it will become the most unforgettable and unique memory of your life.



## COPENHAGEN BUSINESS SCHOOL CRYSTAL LEE

I went on exchange to Copenhagen Business School from August to December 2014. It was a once-in-a-lifetime experience, and it benefitted me in many ways, in particular giving me a broader academic view. Unlike universities in Hong Kong, Copenhagen Business School puts much emphasis on oral assessments, and students are given 20 minutes to put together a 10-minute presentation. During the presentation, professors interrupt the students, asking them questions to help them think out of the box. This is very challenging, and recitation alone by no means guarantees a reasonable grade. In short, my academic life at Copenhagen Business School was tough, but very fruitful. I am convinced that the things I learned from this exchange programme will be crucial in my future career.



## UNIVERSITY OF ST GALLEN FELIX CHAN

I studied at the University of St Gallen for four months, from February to May 2013, but stayed in Europe for seven months. An exchange semester is not the same as simply studying in a different university outside Hong Kong. It is an opportunity to experience much more, and to be independent. It is a chance to travel and take part in as many activities as possible. I travelled to 20 European countries, which is typical for many exchange students. Travelling enables you to learn more about the world and experience different cultures. You may have the chance to see things you have never seen in Hong Kong. Your academic results won't suffer. I can tell you I spent one full month studying at St Gallen, and managed to pass three courses. So, step out of your comfort zone and go for an overseas exchange!



## STUDENT EXCHANGE EXPERIENCES

### THE UNIVERSITY OF SYDNEY BRYAN WANG

Last year, I exchanged at the University of Sydney for five months. That was an unforgettable experience. During my exchange, without too much concern for my academic results, I took a lot of advanced and interesting finance courses and benefited a lot from it. Also, because my student hostel held a party every week, I made a lot of local friends at those parties, and we are still keeping in contact. Furthermore, Sydney is an international city, and only 40% of the people were actually born there. By just simply talking with people on the street, I have heard a lot of interesting stories. During the school vacation, I also travelled to New Zealand. I recommend everyone to go for an exchange, and Australia is definitely a good country for your consideration.

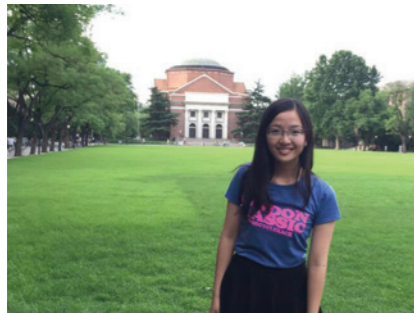


### PEKING UNIVERSITY ALAN LIU

I went on exchange to Peking University from February to June 2016. It was a once-in-a-lifetime experience, and it benefited me in many ways, in particular by encouraging me to think out of the box. The exchange study granted me an opportunity to experience two kinds of totally different university lives. They are different in terms of student background, teaching method, career planning and ways of thinking. This has really broadened my vision and inspired me to believe that experiencing the best/worst parts of the world, instead of being the best/worst employee, makes my life meaningful.



### TSINGHUA UNIVERSITY MICHELLE LAM



Under the QFRM programme, I had the opportunity to take part in two exchange studies, one in the US and one in China. In Beijing, I studied finance and mathematics courses at Tsinghua University for one semester. My classmates, who were the top scholars (“状元”) of their provinces, were extremely intelligent and hard working. They always analysed business issues critically. I was always motivated to study with them and I enjoyed our discussions very much. In addition to studying, I travelled around China and did voluntary work in rural areas to broaden my horizons. It was a great exchange experience and I wish I could have stayed longer!

### NATIONAL UNIVERSITY OF SINGAPORE JASON ZOU

Hi, I am Jason, now a penultimate year major student in QFRM. I participated in an exchange study at the National University of Singapore (NUS) in the second semester of my third year. It was a great experience. The NUS is very beautiful, the people there are nice and the students work very hard, even harder than at CUHK. On the exchange, I did not need to worry about my GPA as I did in CUHK, so I took courses that I was interested in, like Japanese Study and Philosophy, which was great fun. There were orientation activities organised just for exchange students, so it was quite easy to meet students from all over the world and make friends with them. We often went out to have fun, travelled around the nearby countries and talked about different cultures. All in all, going on exchange is like taking a break from the busy study life of CUHK. It is a chance to embrace different cultures, and to experience life in another university in a different country.



## INTERNSHIPS

The internship programme allows students to acquire on-the-job training with the participating companies. Internships provide valuable opportunities for students to gain exposure to the professional environment, outside the classroom. QFRM students who graduated in 2013 - 2014 on average completed 3.1 internships prior to graduation. Over 87% have done at least one internship in a finance-related institution. The internship possibilities can lead to excellent career opportunities. Previous and existing internship partners:

- AIA
- Bain & Company
- Bank of America Merrill Lynch
- Bank of China
- Bank of East Asia
- Barclays Capital
- BNP Paribas
- CFA Institute
- Commerzbank
- Ernst & Young
- Eurex Frankfurt AG
- Goldman Sachs
- Hang Seng Bank
- HSBC
- HKEx
- Hong Kong Monetary Authority
- J.P. Morgan
- JMorgan Stanley
- PwC
- Royal Bank of Scotland
- State Street Global Markets
- Standard Chartered Bank
- UBS Securities
- Western Asset Management Company

## STUDENT INTERNSHIP EXPERIENCES



### JAMES LI J.P. MORGAN

I worked in the J.P. Morgan FX and Rates strategy research team for emerging Asian region. On the fast-paced trading floor, I work closely with salespeople and traders, and have to analyse information quantitatively and qualitatively in an organised and efficient way. Working on bonds and FX fields also requires good numerical and technical skills, as well as solid knowledge in finance and macroeconomics, to understand the mechanism of the market. I am glad that the QFRM programme equipped me with these qualities, preparing me for the demands of the financial industry. This internship experience will definitely be a highlight of my university life and career.



### ALAN LIU HONG KONG MONETARY AUTHORITY

It was a wise decision to take the QFRM programme.

With full support from the programme, I joined the Mergers & Acquisitions team at J.P. Morgan as a semester intern. During the 15-week period, I worked on in-depth company and industry research, financial analyses and models and client pitches. I really enjoyed the huge responsibility when developing meaningful solutions for clients or executing significant transactions.

In QFRM, you will have support from both the Science Faculty and Business Faculty, you will meet groups of competent and passionate classmates, and you will get all-round financial and risk management training.



### CHARLES TSUI HONG KONG MONETARY AUTHORITY

The QFRM programme was of great help to me, and equipped me with solid financial and statistical knowledge. It also enabled me to develop other skills such as programming, which I found really useful during my internship experience.

Thanks to the career support from the QFRM major, I am now working for the Hong Kong Monetary Authority in the Market Research Division. As an intern, I am responsible for conducting research on Hong Kong's financial market and writing up programmes to facilitate the research of other seniors. This has definitely been a great chance for me, and has helped me gain more practical knowledge of the market.





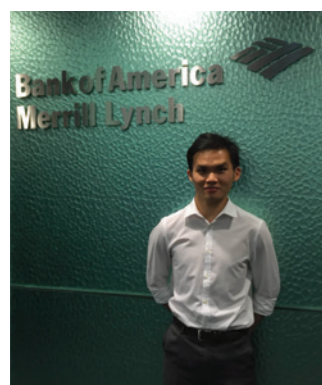
**DICKSON YIP**  
HONG KONG EXCHANGES AND CLEARING LIMITED

I am now working in the HKEX OTC Clearing Risk Management Department. I am involved in a project to test the trade clearing system for new products. By taking part in this project, I have a more comprehensive understanding of the clearing process and how a clearing house manages its clearing risk using margins and limits. Besides, I also experienced the rigorousness of system testing – we are required to re-test, re-test and re-test the system and raw data to make sure there are no lapses in either of them. The QFRM programme has helped me a lot by equipping me with basic knowledge such as swap pricing, margin calculation and expected tail loss. With this knowledge, I was able to understand the testing requirements much more quickly.



**CHRIS YUE**  
PRICEWATERHOUSECOOPERS

Having an educational internship in the PricewaterhouseCoopers Risk Consulting Team, I got the opportunity to help clients in identifying, understanding and managing risk. I conducted valuations on various types of financial instruments, such as interest rate derivatives, credit derivatives, FX/equity options and other hybrid structured products. Indeed, the QFRM programme provides a well-grounded preparation for such technical skills. Besides, I also performed portfolio stress testing and analysed market/liquidity risk through internal comprehensive statistical models. Although the learning curve in this internship is really steep, I could get help from my manager and colleagues at any time. I very much enjoyed the supportive atmosphere there.



**HINSON HO**  
COMMERZBANK AND BANK OF AMERICA MERRILL LYNCH

The days I have spent in the QFRM programme have been hugely rewarding. The breadth and depth of the curriculum have allowed me to develop a solid foundation and suitable skill sets needed for my future career.

I was previously employed by Commerzbank AG as an intern on the DCM Loans Team. My main responsibilities were to conduct market research in the APAC region and facilitate my team along the loan syndication process.

Moving on, I will spend my summer at the Bank of America Merrill Lynch with the Wholesale Credit Team. Thanks to the QFRM programme, I was able to apply my knowledge and understand the statistical methodology of credit assessment and the hedging strategies our bank provides to our corporate and FI clients.



**AMY YANG**  
WESTERN ASSET, CALIFORNIA, USA

This summer I worked as a summer intern in the risk management department of Western Asset Management Company in California. My responsibilities were to provide research and analysis to assess portfolio security and to determine trade allocation parameters. The coursework in QFRM provided a very solid foundation for me in this internship, including programming skills and a good understanding of the financial market. Without QFRM's powerful career service, I would never have gotten this internship in the first place. From this summer internship, I was able to figure out my interest in quantitative research and the next direction of my future path.



**TOM CHAN**  
STATE STREET GLOBAL MARKETS

I worked in State Street Global Markets for six months. As an FX trading intern, I prepared performance reports and enhanced existing pricing models. These challenging tasks provided me with an opportunity to exercise and consolidate the knowledge I acquired from school, such as programming and interest rate theories. They also exposed me to new market concepts, strengthened my analytical thinking and prepared me to work in a fast-paced environment.

I am truly grateful to my colleagues for giving me guidance and discussing with me their views on the market and other topics. Without their willingness to share, I wouldn't have gained so much experience. Thank you State Street for such a joyful time!



**CHAPMAN LO**  
EUREX FRANKFURT AG & HSBC

QFRM equipped me with both qualitative and quantitative financial knowledge, which helped me a great deal in gaining new opportunities and finding internships, and allowed me to apply my quantitative knowledge. I worked at Eurex Frankfurt AG, Deutsche Borse Group, in Frankfurt as a sales intern for half a year. I was required to conduct research on the structures and market dynamics of derivatives to explore capital market opportunities in Asia. Now I am starting a new chapter in my life as a trading analyst at HSBC. Through QFRM, I was able to utilise my derivative knowledge and quantitative modelling skills to understand the structured FX products and price structured derivatives. Working in such a fast-paced financial market definitely honed both my problem-solving and communication skills.



**BOSCO LAM**  
ERNST & YOUNG

The QFRM programme has equipped me with most of the skills needed to excel in the risk management industry. It has exposed me to different financial modelling and financial instruments pricing methods. I found those skills exceptionally useful during my six-month internship in the Financial Services Risk Management Department at Ernst & Young. During this time, I was responsible for various liquidity risk projects, in which I had to build behavioural models to estimate client liquidity consumption. Through extensive use at work and concentrated training during my study, I have managed to gain expertise in various programming languages, such as SAS and R.



**AARON GAO**  
EUREX FRANKFURT AG

QFRM has not only helped me build a solid academic foundation, it has provided me with many opportunities to apply my knowledge in the real world.

I had the chance of going to Germany and work at Eurex Frankfurt AG, as an intern in its Asia and Middle East departments. I was mainly responsible for conducting research on different financial derivative markets and seeking opportunities on developing the company's business in Asia. One of my major tasks was to prepare a detailed research presentation on RMB internationalisation. Through this internship experience, I deepened my understanding in global financial derivative markets and enhanced my ability to work with people from various backgrounds.

## EXTRA-CURRICULAR ACTIVITIES

QFRM students are also actively engaged in student activities, voluntary services and international competitions to broaden their horizons.

### KEN YUEN FINALIST, PEAK TIME CASE COMPETITION 2015

Our team took this valuable opportunity to participate in an international business competition. Top business students from all over the world competed and exchanged ideas in the gorgeous city of Riga in Latvia, known as the Paris of the North. Twenty teams from top-class and renowned business schools took part, and were given the hands-on task of preparing and presenting business analysis, which was then judged by business veterans from the consulting and venture capital industry. The unique and fast-paced business CESIM simulation put teams into simulated markets, where their task was to maximise the cumulative shareholders' return in the tablet manufacturing industry. Business competitions like this enable us to put classroom theories and knowledge into practice, further strengthening our business and financial sense. As well as the exchange of ideas and culture among the business elites, the Peak Time 2015 enabled us to gain invaluable insights from the brightest minds.



### HENRY LIN PEAK TIME CASE COMPETITION 2016

Together with three other students from the CUHK Business School, I joined Peak Time 2016 in Riga, Latvia. The final competition attracted 20 teams from 17 different countries. The final competition was divided into two rounds. In the first round, we, acting as the managing board of a phone manufacturing company, were asked to maximise the share price of the company by applying different pricing strategies. During the second round, we were requested to help a company out of its dilemma within 4 hours and gave a presentation to a panel of judges.

The Business competition gave us a chance to apply book knowledge to a real-world scenario, to get connected with outstanding students from all around the world and also to derive valuable advice from the judges. Meanwhile, the organising competition arranged a wide range of activities that offered us a chance to explore Riga, an old and mystical city in eastern Europe.



### HENRY LIN 2<sup>ND</sup> RUNNER-UP, ERNST & YOUNG CSR CHALLENGE

Together with eight students from six different universities in Hong Kong, I joined the Ernst and Young Company Corporate Social Responsibility (EY CSR) Challenge. Unlike other case competitions, the EY CSR challenge offered us a valuable experience in giving real marketing advice to a startup in the Hong Kong Science and Technology Park (HKSTP). During the Easter holiday, we had a booth at HKSTP that attracted around 2,000 visits. As the second part of the challenge, we were requested to present our marketing advice to the partners of EY, chairman of HKSTP and also entrepreneurs from the startups.

As the case is based on a real setting, not many ideal assumptions could be made. We needed to be very attentive to the details and get strong support for all of the suggestions made. This unique CSR challenge offered me a valuable chance to get in touch with entrepreneurs in different fields and gain valuable experience from these professionals in the field.



### PETER XI & KINSON CHAN BEST CONSISTENCY AWARD, CASH ALGO TRADING CONTEST

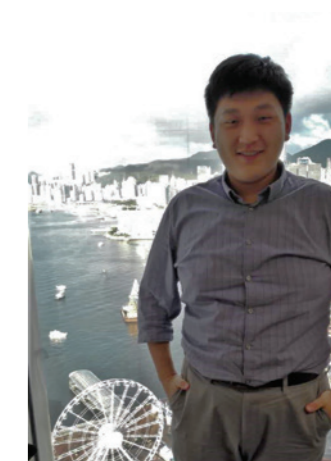
Participating in the CASH Algo Trading Contest has been a unique experience that cannot be obtained elsewhere. In the contest, our team strived to compose a trading strategy algorithm using Python in pursuit of both high returns and good consistency. The competition is a remarkable opportunity to apply knowledge of quantitative finance and risk management in the investment world, and furthermore, it has also been a chance to sharpen our programming skills. All of our team members enjoyed the contest, and winning the Best Consistency Award definitely better prepares us to be future quants.



### SHI-YU SONG RANKED 8TH GLOBALLY, J.P. MORGAN INVESTMENT CHALLENGE 2015

I joined the J.P. Morgan Investment Challenge last semester and luckily ranked 8th globally. I used a simple but very risky strategy by setting up a synthetic long stock with Ping An (02318.HK). The strategy allows you to win lots of money once you bet on the right trend but at the same time suffer a lot by taking risks.

It is always worthwhile to join different case competitions; the cost is limited but the rewards are huge. Not only do you get possible internship opportunities, you can also apply what you learn from the textbook to the real-world situation.



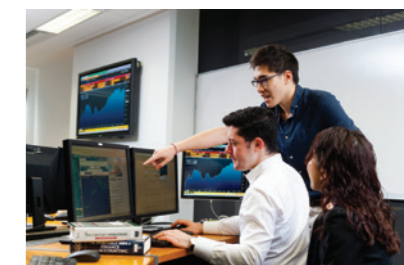
## CAREER PLANNING AND DEVELOPMENT

The QFRM programme offers individual and group career coaching, training and advice. A number of career training workshops covering all aspects of the job-hunting process will be held in the first semester and early in the second semester. These equip students with a complete set of skills, from the identification of leads to CV writing, interview skills and job-hunting strategies and techniques. There will also be practical coaching and drilling, such as mock interviews, sharing sessions with alumni, mentorship and buddy programmes, etc.

Students are strongly encouraged to take part in these career activities early on in their studies, to gain a clear picture and a good understanding of the expectations and challenges of finding a job or an internship.

## FINANCE TRADING LABORATORY

QFRM students have access to high-end workstations at the computer laboratories of the Department of Finance and the Department of Statistics. The Finance Trading Laboratory, with 53 desks, is among the best of its kind on a university campus. The Laboratory is equipped with Bloomberg and Reuters terminals and is supported by unparalleled real time data feeds from major exchanges around the world including the New York Stock Exchange (NYSE), Hong Kong Stock Exchange (HKEx) and Eurex, one of the world's leading derivatives exchanges.



## ALUMNI SHARING FURTHER STUDIES



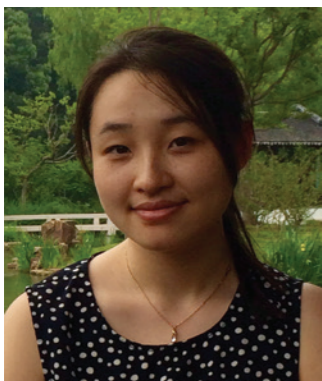
**MICHAEL CHAU**  
Ph.D in MATHEMATICAL FINANCE, IMPERIAL COLLEGE LONDON

The QFRM programme has equipped me with solid theoretical knowledge of the quantitative methods and statistical tools used in finance. The experience gained during my half-year of exchange study at Uppsala University, Sweden, is valuable in my future studies, while my summer internship at the Royal Bank of Scotland enhanced my understanding of market risk management from the practitioner's point of view. After completing my undergraduate degree, I chose to pursue a Master's degree in risk management science at CUHK. The guidance and training offered by the Department of Statistics has enabled me to produce two original research papers for consideration in top-tier academic journals in the field of stochastic control and optimisation with application to operations research and finance. With this solid background in mathematical finance, my next step is to pursue a joint PhD at Imperial College London.



**BRIAN LING**  
Ph.D in STATISTICS, COLUMBIA UNIVERSITY

The QFRM programme has a well-structured curriculum, which has equipped me with solid, practical knowledge of statistical methodologies and quantitative tools that are vital for my further studies. The valuable exchange study in the University of Toronto, Canada also broadened my horizons and gave me the experience of studying in a foreign country. As an undergraduate, I was also given the opportunity to be a research assistant under the supervision of Professor Wong Hoi Ying, and was a summer intern in the financial services risk management department at Ernst & Young. I therefore experienced both the academic research life and the business of risk management from the practitioner's point of view. After graduating, I chose to pursue a Master of Philosophy degree in Risk Management Science at CUHK. The guidance and rigorous training I was given while studying for my Master's helped me produce two original research papers in the field of statistics, which I submitted for consideration to top-tier academic journals. I am currently studying for my PhD in Statistics at Columbia University.



**ASHLEY SHEN**  
Ph.D in FINANCE, WHARTON SCHOOL, UNIVERSITY OF PENNSYLVANIA

My name is Lin (Ashley) Shen. I spent four treasured years at the Chinese University of Hong Kong (CUHK) and received my BSc in Quantitative Finance and Risk Management Science (QFRM) in 2013. Currently, I am working on my PhD in Finance at the Wharton School of the University of Pennsylvania. The QFRM programme in CUHK provides students with training and resources in both the Business School and the Faculty of Science, which gives us great advantages when applying for jobs and graduate schools. In my case, I participated in the exchange programme with the Wharton School and took two finance PhD courses in the CUHK Business School. These experiences and all of the quantitative training that I received at the Faculty of Science have turned out to be very helpful to my PhD coursework and research.



**LESTER CHAN**  
Ph.D in ECONOMICS, BOSTON UNIVERSITY

The QFRM programme offered me comprehensive academic training and equipped me with solid theoretical knowledge and practical quantitative tools, which are essential to my future studies. The valuable exchange experience at the University of Toronto also broadened my horizons and prepared me to further my studies overseas. As an undergraduate, I was a summer intern in the consumer credit risk management (secured) department at the China Construction Bank (Asia), where I learned more about risk management through actual practical experience. After graduating, I embarked on a Master of Philosophy degree in Economics at CUHK. The knowledge I acquired from the QFRM programme turned out to be very useful in the study of economics, and particularly important in research studies. I am currently pursuing a PhD in Economics at Boston University.

## CAREER PROSPECTS

**LORRAINE ZHAO**  
GOLDMAN SACHS

During my time at university, I treasured the chances available to go outside Hong Kong and explore the world. In my first year, I visited Scotland and attended an English Enhancement Course at the University of Edinburgh. Over the second summer holiday, I took part in an exchange programme with students from Tsinghua University. Both of these exchange experiences enabled me to better understand the wider world and cultivate a mind-set that embraces different cultures and values. This is essential to prepare me for work in an international company. In addition, I gained valuable experience in my last internship. Working with supervisors who had different styles taught me how to adapt to various working styles and how to prioritise tasks when schedules are tight. In job interviews I was frequently asked how I worked under pressure, and my internship experience provided valuable lessons regarding this. As a QFRM alumnus, I am very grateful of having joined the programme and learned technical skills and life values. The rich resources provided by the university have enabled me to aim higher in planning my future after graduation.

**FIONA CHOU**  
BANK OF AMERICA, MERRILL LYNCH

Four years ago, a little girl was struggling with her JUPAS choices up until the last minute, feeling extremely lost as she tried to strike a balance between academic work, internships and extracurricular activities. Today this girl is graduating, ready to enter society.

If I were to make my choices again, QFRM would still be my top priority. Although the coursework is demanding, it prepares us with solid analytical and soft skills that are prerequisites for developing a career in finance. One could not get a better mix of training and exposure elsewhere.

During the study, I managed to undertake an exchange in the US, complete summer internships in investment banks and a hedge fund and, most importantly, make many lifelong friends who motivated and inspired me all the way through.

Had it not been by the support of the Faculty, my time at university would not have been so fruitful.

**ROBIN ZHAO**  
DEUTSCHE BANK

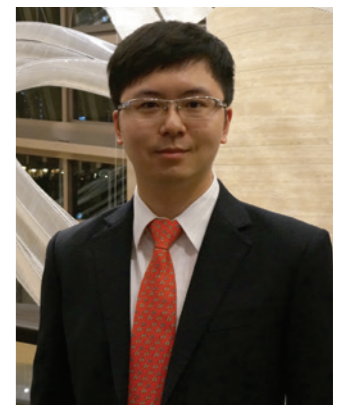
My university life can be summarised by several keywords: QFRM, friends and hostel, exchange, internship and fun.

As business foundation students at CUHK, we are free to decide on our major in our second year. QFRM is definitely a good choice compared with other programmes, with its combination of finance courses and other quantitative mathematical and statistical courses that prepare students for a broad range of opportunities.

I spent my five university years at New Asia College and lived in Chih Hsing Hall, which is a great hostel with an excellent view and friendly staff, and I have also met some of my best friends here.

QFRM students enjoy a distinctive advantage in exchange opportunities, as we are eligible to apply for the exchange programmes offered by both the Business Faculty and the Science Faculty.

QFRM students can also take advantage of career guidance services from both the QFIN and the RMSC programmes and receive more information about internship and graduate jobs.





**AARON GAO**  
GOLDMAN SACHS

To me, the best part of the QFRM programme is that it offers students tremendous opportunities and possibilities. It opens the door to a broader world. The intense coursework helped me build a solid quantitative foundation. The internship opportunities significantly enhanced my soft skills and my real world understanding.

During my four years in QFRM, I tried to experience as much as I could. With the help of the QFRM, I managed to complete several internships in different fields. I worked for a futures exchange, a wealth management firm, an investment bank and a quantitative trading firm. These experiences helped me find my real area of interest. Being overseas in the US and Europe dramatically broadened my horizons and improved my ability to work with people from different backgrounds. Last but not least, in my four years of study I made many lifetime friends through QFRM. We will keep supporting each other even after graduation.

QFRM offered me the best combination of theoretical knowledge and real world training. I am glad that I was part of this programme.



**BOSCO LAM**  
HONG KONG EXCHANGES AND CLEARING LIMITED

The QFRM programme is an all-round curriculum that provided all of the necessary skills and opportunities for me to explore the financial industry. I received rigorous financial and mathematical training through lectures and projects during my 4-year study. Meanwhile, I participated in various trading competitions, case competitions and internships, which allowed me to put my programming skills and the financial theories I learnt to use. Working at HKEX is highly dynamic, especially with its growing business opportunities and its mission to shape market development. It is a place where you meet professionals from all over the world and work on the cutting edge of the financial market.



**JAMES LI**  
HSBC

When I was admitted as a freshman into the QFRM programme in CUHK, I set myself three goals:

1. Acquire financial and statistical knowledge
2. Go for an overseas exchange programme
3. Be ready to start my career in finance

I am now glad to say that I got way more from the QFRM programme.

The courses in QFRM are demanding and practical, and equipped me with solid technical skills. During my semester exchange in New York City, the friends I made were intelligent and innovative. This experience made me more adaptive to multi-cultural environments. QFRM students are encouraged to take part in internships, and I took three in my time there. All of my experiences enabled me to understand how the industry works. Most importantly, I made lifelong friends at CUHK, and enjoyed campus life by participating in the activities offered by Chung Chi College, the Business School and the Science Faculty.

I would like to express my sincere gratitude to QFRM for such as rewarding university journey.



**CHAPMAN LO**  
HSBC

QFRM equips me with both qualitative and quantitative financial knowledge, which helps a great deal in gaining opportunities in getting internship opportunities and applying my quantitative knowledge. I have worked in the Eurex Frankfurt AG/Deutsche Börse Group as a sales intern in Frankfurt for half a year. I was required to conduct research on structures and market dynamics of derivatives to explore capital market opportunities in Asia. Now I am turning a new leaf as a trading analyst at HSBC. Through QFRM, I could utilise my derivative knowledge and quantitative modelling skills to understand the structured FX products and facilitate the pricing of structured derivatives.



**CHEUNG FUK SHING**  
BLACKROCK

My three-month summer internship experience in one of the largest asset management companies, BlackRock, was extremely enriching and provided me with practical experience in the financial markets. Working with other experienced traders in the iShares Capital Markets team, I was responsible for monitoring flows of ETF and presenting them to the management board. I also wrote pitching reports explaining investment opportunities to clients, and illustrating trading strategies. The internship helped me understand more about passive investment, and gave me further insight that will assist my career development in asset management business.

The QFRM programme provided me with good, solid knowledge in both finance and statistics, and gave me many opportunities to experience things like case competitions and exchanges to enhance my soft skills. I am proud to be a QFRM student.



**FELIX CHAN**  
MICROSOFT

QFRM provides the best environment for students to grow because you can learn from both Business and Statistics perspectives. I had several internships in commercial and public sectors, thanks to the training and guidance I got from the departments. Besides academic and working experiences, studying abroad will definitely help prepare you for future challenges. I went to the University of St. Gallen for exchange and went backpacking in several European cities. However, I was not satisfied with doing the same thing after my graduation. I tried to be different and all these track records paved the way for my work at Microsoft, a global software company.



**KELVIN NG**  
DEUTSCHE BANK

Having been a QFRM student for four years in my university life, I am glad to say that I have achieved more than I expected. Throughout my university life as a QFRM student, I joined one exchange programme, completed a few internships and absorbed useful knowledge and skills in finance and risk management.

My overseas exchange experience was a rewarding one. It was an unforgettable journey and encouraged me to step out of my comfort zone. With the support of our department, I was also able to complete a few internships, which provided insights into the industry. Finally, the demanding yet rewarding courses in QFRM provided us with a solid theoretical background and practical applications to the business world.

I would say the programme is one of the best programmes for students aiming for a career in finance and the risk management industry.

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