



# CQF GRADUATE CAREERS

**JANUARY 2023**

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# WELCOME FROM THE CQF PROGRAM DIRECTOR

“The field of quantitative finance is always evolving and constantly moving forward as new research and technologies come to the forefront.

For professionals in the industry it is important to keep skills competitive to meet the demands of the markets. In a recent survey at a CQF Institute event, 92% of quant finance professionals said that they felt the skill set needed for quants will change over the next five years.

At the CQF, we firmly believe in equipping you with the tools you need to tackle new challenges and go further in your career. Our program is updated quarterly in consultation with senior alumni and faculty to ensure it reflects the latest techniques being used in the industry. We teach the practical implementation of quant techniques and partner with our alumni throughout their working lives by providing ongoing career support and permanent access to our continually updated Lifelong Learning library. It’s this career-long partnership that we focus on in this report.

Following the graduation in October 2022 of our January 2022 program delegates, this report celebrates their success, showcases what they are doing, and demonstrates how the CQF has impacted their careers. Within 10 months since enrolling we found that 27% of our graduates had already started a new role with many planning moves over the coming months.\*

As we enter the 20th year of the program, we look forward to welcoming the next ambitious quant professionals from around the world who are looking to gain the quant finance and machine learning skills they need to take their careers to the next level.”



**DR. RANDEEP GUG**  
Managing Director, CQF Institute





# SUPPORT THROUGHOUT YOUR CAREER

We know that finishing the CQF program is not the end of your journey in quant finance. That's why we support our alumni throughout their working lives to ensure they achieve their career goals. In addition to having access to the ever-expanding Lifelong Learning library, alumni have access to our Careers Service. This service offers a number of tools and opportunities for advice, networking, and support, including:

## Career Guidance

### QUANT FINANCE JOBS EMAIL

The latest global quant roles from top-tier organizations, where the CQF is listed as a preferred qualification, are sent out in our Quant Finance Jobs email every month.

### CV CLINIC

It's always beneficial to get a fresh pair of eyes on a resume. At the request of an alum, a member of our team will run through their resume and offer advice.

### SOCIAL MEDIA ADVICE

Many recruiters search for job candidates on LinkedIn directly so this service supports our alumni to optimize their profile's performance so that they stand out from the crowd.

## Networking Opportunities

### CAREER INSIGHTS

Organized by the CQF Institute, the awarding body of the CQF, these events offer alumni a chance to hear senior practitioners discuss quant career paths and tips.

### CQF INSTITUTE SOCIETIES

Societies offer local networking opportunities and run regular in-person industry talks around the world, giving alumni the chance to meet other quants in their area.

### WILMOTT FORUM

This private group on Wilmott.com is a unique opportunity for current delegates and alumni to network with faculty and each other to build connections that last beyond the program.





# FIRST IN CLASS AWARD WINNER



## SHAUN LEVITAN COO, COLOURFIELD

My career began at Alexander Forbes in South Africa, where my responsibilities included asset liability modelling and specialist investment consulting for pension funds.

In 2010, I co-established a new company called Colourfield, which was the first dedicated liability-driven investment management firm in South Africa. Today I am the COO and Executive Director of Colourfield which is the largest provider of LDI solutions in Southern Africa. We manage assets in excess of \$3 billion. Our bespoke solutions include a thought leading goals-based investment framework developed with Nobel Prize Laureate, Professor Robert C Merton.

At the heart of Colourfield’s technology is the use of leading-edge academic theory. My desire is to advance the worldwide thinking in goals-based investment for defined contribution funds which requires additional specialized expertise. I applied for a PhD program and was accepted, but was advised to complete the CQF to fill in some gaps in my knowledge.

Nothing quite prepares you for the CQF program once it actually starts! Very quickly we were reacquainted with calculus, linear algebra, and solving differential equations. Programming too – by the end of the CQF, you will know your way around Python and will be able to implement machine learning models. One of the greatest benefits of the CQF is taking real-world topics, working through them, and then seeing how you can apply this approach in the workplace, whether it’s the Black-Litterman model, a mean variance portfolio frontier, or even machine and deep learning techniques to predict stock price movements.

I’d also make particular mention of the lecturers. Most of them have written textbooks on the topics they cover – so their expertise is deep and yet they are approachable and engaged. The team have also put a lot of time into making sure that the material is current. The program has kept up with the times; take the machine learning modules, for example. I was coding in Python and wrote up all my assignments in LaTeX.

I also enjoyed getting to know my fellow delegates through our WhatsApp group; a real camaraderie developed over the course of the program. Now that I’ve completed the CQF, one of the things I appreciate the most is the access to the Lifelong Learning Library and the fact that it keeps growing. There are also a number of quant-focused conferences and they attract wonderful speakers.

The CQF is hard work to be sure. However, the sacrifice is well worth it and you will gain an exceptional qualification and leading-edge knowledge.

Read Shaun’s full story [here](#).

## WHERE DID OUR GRADUATES STUDY THE CQF?

The CQF is a globally recognized qualification that is delivered online, so our delegates work and study all around the world. Some of our graduates also use the program to gain the skills they need to transition to a new role in a new location.



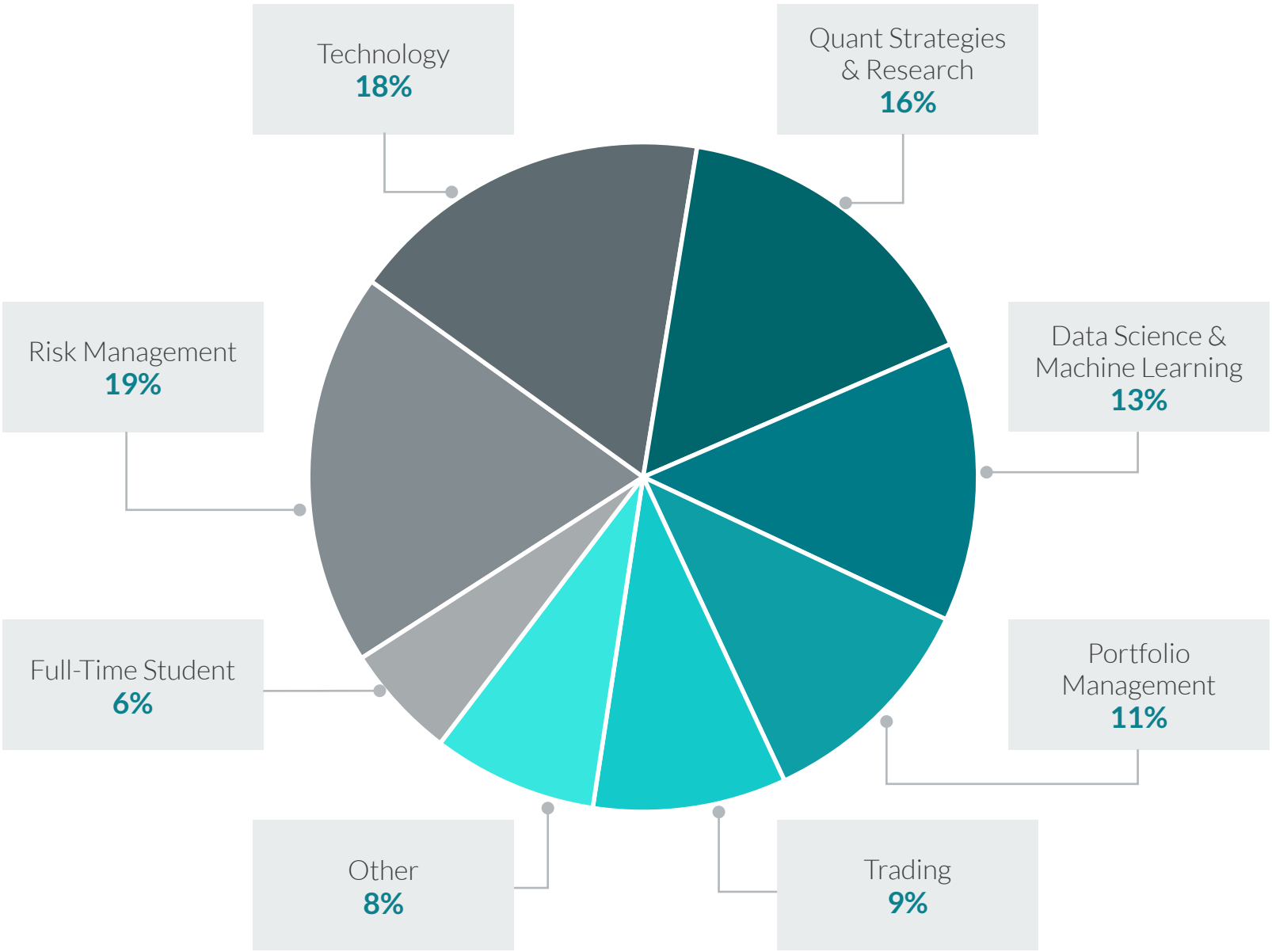
\*These are just a sample of the key locations where January 2022 CQF program delegates were based



# WHAT DO OUR CQF GRADUATES DO?

The CQF program is delivered part-time, enabling our delegates to maintain a full-time role alongside their studies. The majority come from typical quant career paths such as Risk Management or Quant Strategies and Research; others, such as our delegates in full-time study, use the CQF as a springboard to start a career in quant finance.

As of October 2022, our graduates from the Jan 2022 program were working in the following career paths:



**27%**  
have started a new role in the 10 months since enrolling on the Jan 2022 cohort.\*

**19%**  
have gained a more senior position in the 10 months since enrolling on the Jan 2022 cohort.\*





# TYPICAL JOB TITLES OF GRADUATES

Our January 2022 CQF graduates work in a number of roles across the six key career paths in quant finance, but typical job titles across the cohort include:

- Actuarial Manager
- Algorithm Engineer
- Application Developer
- Assistant Vice President
- Associate Director
- Chief Data Officer
- Chief Executive Officer
- Chief Investment Officer
- Chief Operating Officer
- Chief Risk Officer
- Credit Risk Manager
- Data Analyst
- Data Engineer
- Data Scientist
- Derivatives Trader
- Director
- Equity Trader
- Financial Consultant
- Financial Engineer
- FinTech Developer
- Fixed Income Portfolio Manager
- Fixed Income Trader
- Fund Analyst
- Fund Manager
- Gas Trader
- Global Head of Portfolio Analytics
- Head of Risk
- Investment Manager
- IT Developer
- Machine Learning Engineer
- Market Risk Manager
- Portfolio Manager
- Programmer
- Quant & AI Researcher
- Quant Strategist
- Quantitative Analyst
- Quantitative Developer
- Quantitative Director
- Quantitative Risk Manager
- Risk Analyst
- Risk Manager
- Senior Associate
- Senior Consultant
- Senior Manager
- Software Developer
- Software Engineer
- Structurer
- Trader
- Vice President

\*These are just a sample of job titles belonging to delegates on the January 2022 program





# WHERE DO CQF GRADUATES WORK?

Our recent graduates work in a variety of roles at financial firms around the world, including:

- Apollo Global Management
- Aquila Capital
- Banchile AGF
- Bank of America
- Banque Centrale du Luxembourg
- Banque Saudi Fransi
- Barclays
- BlackRock
- Bloomberg
- BlueCove
- BNP Paribas
- BTG Pactual
- Capgemini
- Capital Market Advisors
- Chatham Financial
- Citi
- Colourfield Liability Solutions
- Coremont LLP
- Credit Suisse
- Deloitte
- Delta Fund
- d-fine
- Dragon Capital Group
- Dutch State Treasury Agency
- Elequin Capital, LP
- EY
- Goldman Sachs
- Grove Weath Management
- HSBC
- IndusInd Bank
- ING
- Itaú Asset Management
- JP Morgan Chase & Co
- Kelinwort Hambros
- Kiatnakin Phatra Financial Group
- KPMG
- Lloyds Banking Group
- Mashreq Bank
- mBank
- Millennium Management
- Minsheng Securities Co.,Ltd
- Murex
- Nuai
- OCBC Wing Hang
- Orient Securities
- Principal Hong Kong
- PwC
- Quantifi, Inc.
- Rand Merchant Bank
- Royal Bank of Canada
- Santander
- Scotiabank
- Shell
- Societe Generale
- Standard Chartered Bank
- Sumitomo Mitsui Banking Corporation
- Swiss Re
- T. Rowe Price
- TED Optimus
- True North Partners
- UBS
- Vancity
- Wells Fargo
- YieldX

\*These are just a sample of the organizations where January 2022 program delegates work



## CQF INSTITUTE AWARD WINNER



### ZACHARIE GUIBERT

#### QUANTITATIVE ANALYST, BANQUE CENTRALE DU LUXEMBOURG

My first job experience was in the life insurance business. I learned a lot there, but I was more attracted by the asset side of the job, which is why I joined the investment management industry.

In the beginning, I learned everything I know in finance by working in the sector. For a moment, I considered going for a PhD until I heard of the CQF from a friend. I looked at the curriculum and it was fantastic. What I immediately liked was the willingness to get to the bottom of each financial model. I was also excited about the machine learning and artificial intelligence modules. In the meantime, I joined a central bank, as I wanted to understand better what drives monetary policy decisions, particularly in the context of COVID-19 pandemic – and now booming inflation, where central banks play a key role.

I really enjoyed the CQF because of my professional experience. Once you have traded options or built a hedging or absolute return strategy, it is much easier to grasp all of the concepts and models explained in the program, as you know how these instruments work in practice, despite the fact that they look very theoretical at first. In addition, the machine learning and artificial intelligence modules were ideal for me to progress in my work. From that angle, I feel that the CQF took me to a different level. Of course, when I thought of a trading idea or a risk modeling idea prior to the CQF, I could implement a workable solution. But the way that the faculty taught us how to code during the CQF was so clear and structured that I've become a much better coder. More generally, I really enjoyed the continuous practical insight on various theoretical concepts all along the program.

For incoming delegates, I would say that every module is essential, as they are all building blocks that fit together, and it goes amazingly fast. With that in mind, the key thing is to keep up with the momentum and study thoroughly. It takes a lot of work and dedication to get through the CQF, but the learning curve is so steep that it keeps you motivated along the way. Every bit of the CQF must be taken as a way to test your understanding and skills: one of the lectures provides working code in R, so see if you can do it in Python. Practice is key.

Finally, the CQF lays down the foundations of all models in finance. The program is too short to cover all aspects of quantitative finance, but it gives you all the tools to get most of the hidden models quite quickly. From my point of view, this is where the real journey starts; work by yourself and explore the models that interest you the most. From that perspective, the CQF continues to provide support, with books, Lifelong Learning, and conferences, which are all great.

Read Zacharie's full story [here](#).





# WHAT SKILLS DO CQF GRADUATES GAIN FROM THE PROGRAM?

The CQF focuses on teaching the practical implementation of the latest quant finance and machine learning techniques. Our graduates have completed rigorous exams and a final project based on real-world scenarios. As a result, they are career-focused, driven, and possess the technical skills financial firms require.

## DATA SCIENCE AND MACHINE LEARNING

CQF graduates have strong quantitative analysis skills. They have gained experience of analyzing and interpreting vast data sets using predictive modeling and machine learning techniques, including supervised, unsupervised, and reinforcement learning. They can implement a range of machine learning techniques using Python and other coding languages.

## PORTFOLIO MANAGEMENT

CQF graduates have a strong understanding of asset allocation and portfolio construction, having studied everything from modern portfolio theory and the capital asset pricing model to advanced portfolio management techniques. They have developed proven analytical skills as they have had to optimize and analyze the performance of assets.

## RISK MANAGEMENT

CQF graduates have a deep knowledge of risk models and analytical practices. They can use various models and methods, such as VaR and its variants, Monte Carlo simulation, time series analysis, stress testing, and statistical models to evaluate the risk in an asset or across an entire portfolio of assets. They have strong quantitative and financial modeling skills.

## QUANT STRATEGIES AND RESEARCH

CQF graduates can use quantitative methods to analyze the markets. They are able to generate and test ideas for investment strategies, while also managing risk effectively. They possess a deep knowledge of mathematical and statistical models and machine learning techniques needed for quant research and analysis.

## TECHNOLOGY

CQF graduates have excellent coding skills in Python, and are able to design, and develop effective solutions. They have gained experience of implementing and analyzing quantitative models. They have the technical skills needed to build risk and trading systems used in technology.

## TRADING

CQF graduates can use mathematical models to price assets, manage risk, predict market movements, implement algo trading strategies, and find arbitrage opportunities. The trading desk is a dynamic, high-pressure environment and many alumni have the tenacity and drive to thrive in this type of workplace.

To find out more about the skills needed and the average salaries earned for key quant finance career paths, download the **CQF Careers Guide** today.





# ABOUT THE CERTIFICATE IN QUANTITATIVE FINANCE (CQF)

The Certificate in Quantitative Finance (CQF) is the world's largest professional qualification in quant finance. Awarded by the CQF Institute and exclusively delivered by Fitch Learning, the program is delivered online, part-time over six months, with up to three years to complete all modules and the final project. The CQF focuses on teaching the essential quantitative finance and machine learning skills used by practitioners in today's financial markets. The syllabus is updated quarterly in consultation with faculty and senior alumni to ensure that the skills taught on the program meet industry demand. CQF alumni are given permanent access to the CQF Lifelong Learning library to help them keep their skills competitive throughout their careers.

Start your CQF journey today at [www.cqf.com](https://www.cqf.com).

## END NOTES

Thank you to our graduate award winners for sharing their career journeys with us.

The first statistic in the welcome message has been taken from the Quant Insights Conference in October 2021.

Statistics marked with an \* are based on information from Jan 22 program graduate profiles found on LinkedIn.







# CERTIFICATE IN QUANTITATIVE FINANCE

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