Excellence at MMF is built on three pillars: the quality of the students, the quality of the staff, and the quality of the faculty. At MMF, we have been blessed over the years with having a diverse group of teachers, with the best academic and industrial credentials and a relentless commitment to the program, its qualities, its students and its success. This year is a transition year: Andrey Feuerverger, after teaching his statistics course since the beginning of the program, not missing a single year, is retiring; all students will remember him. Jason Pilling, graduate from the first MMF cohort, who has been energizing his introductory course on how the financial industry works through his own signature and a select group of guest speakers, has taken a pause while he has relaunched his career at Manulife. Dmitri Rubisov, who taught the risk management course for over ten years, is taking a well-deserved pause and focusing his efforts at the Bank of Montreal. Tom McCurdy, who has been teaching at the program since the beginning, will continue to teach his all-famous volatility course, but due to his over-extended teaching commitments at the University will step down from teaching his Finance and Banking course; due to new commitments at work; Ian Buckley left his technology course and recently transferred from S&P’s Capital IQ over to the regulator’s office at OSFI; Hans Tuenter, whose energy course students will always remember, has moved to Bermuda to run a new hedge fund; and Hans Tuenter, whose energy course students will always remember, has moved to Bermuda to run a new hedge fund: I am eternally grateful to them for their work with us over the years, and their willingness to continue to be engaged with the program in an advisory capacity, helping us bring their vision into the future evolution of the program. At the same time, we want to welcome a new group of instructors, Mark Engel, Niall Whalen, Dina Duhon and Chuck Gervais who oversee risk management at the Bank of Nova Scotia and will carry the Risk Management course forward, a real treat for the graduates of the future; Peter Berdeklis, who developed his career at Maple Financial and for whom the world of trading has no secrets, took over the technology course. Alan Peng, from OSFI took over an additional course at MMF and is now teaching regulation and compliance, in tandem with Megan Vesely, the first lawyer to teach at MMF ever, which allows students to profit from their unique view of the changing regulatory landscape. Jennifer Page, who is known to past students for her participation in Jason’s course, is increasing her role in the program giving students a deeper insight in the banking area of the financial sector. All these changes make for an exciting time at MMF; innovation and growth will be taking us into the future—which looks very bright.

JOIN US AT THE
BLUE MOUNTAIN SYMPOSIUM
January 18 - 21, 2018 ~ Blue Mountains, Ontario

**A Message from the Director**

Mark Blair  
Director, OTPP  
MMF Instructor

Tell us about your role at OTPP  
I’ve done a lot of different things at OTPP but they all involve combining data, technology, and analytics to make well-informed investment decisions.

What are the challenges and rewards of being an instructor at MMF?  
A reward is meeting the students at the beginning of their careers in finance. This is the next generation of leaders who will have a tremendous influence particularly on Toronto’s financial community. It is also an honour to be a part of the University of Toronto.

What’s the most important concept you want the students to take away from your course?  
There is a wide gap between theory and practice in asset management. Mean variance optimization is not really used to build portfolios. It would be very odd to be in asset management and believe in the efficient market hypothesis. Asset management is the most practical course the students will take. Almost everyone faces the issue of how to invest money whether as an individual investor, a fiduciary, or an active trader. You may be advising family, friends, or retirees. This advice will have a material impact on people’s lives.

There are many opportunities to combine another interest with asset management. Someone interested in technology should know that cryptocurrencies, blockchain, big data, artificial intelligence, and quantum computing all have the potential to make big impacts on asset management and finance in general.

We know that you are a music aficionado, who are you currently listening to?  
Waxahatchee, Kurt Vile, Dinosaur Jr, Screaming Females, Japandroids, Sumo Cyco
This makes the market much more efficient. Although Northstar focuses on a niche market, there is extensive room for expansion within the energy market as well as through different synergies, such as natural gas. Right now, Bahi and his partner are intimately involved in the daily workings of his company, but as he hires and mentors employees, his eventual goal is to grow the company into a beacon for savvy financial risk-taking in Canada -- the kind of entrepreneurial and meritocratic firm that he was hard-pressed to find when he began his career.

This entrepreneurial venture is a perfect fit for Bahi in many different ways. Northstar is in the business of trading risk in the energy market, based on mathematical calculations -- and this is driven by Bahi's skillset, having earned his Masters of Mathematical Finance from the University of Toronto and currently pursuing his PhD in Finance at EDHEC Business School. His business has allowed him to apply what he is passionate about and also good at, into a math-related career that is both challenging and interesting. He credits his graduate program for the exposure to tools such as Matlab & R that he is able to use on a daily basis at Northstar. His graduate degrees and mathematical educational background have provided him with confidence and credibility when it comes to interfacing with clients, while also differentiating him from other candidates throughout his career.

Growing up in a Tamil Canadian household, Bahi was expected to complete his engineering degree in order to procure a steady career and achieve stability in his life. However, as his job exposure increased, he realized that his personality was better suited to something else. Now, as CEO of his own company, the best part of his job is possessing flexibility, freedom and total control of his life and schedule. His attraction to the trading industry stems from the fact that it follows a straightforward 'Profit and Loss' formula that clearly determines his personal success. Although it was quite apparent that it would be risky to put his life savings into a company, especially so soon after his wedding, Bahi knew that the one thing he could not afford was to look back with regret. It is important to note that what allowed him to take a greater risk is the fact that he had his varied educational degrees and many years of successful corporate experience to fall back on. Bahi's advice to entrepreneurs is simple; make sure that you have conviction and an unwavering belief in what it is that you are doing because this is what will get you through the tough times that inevitably arise when running your own business. And it is extremely helpful to partner with someone who possesses a complementary skillset. (Excerpt from TC Spotlight)

What are the current goals your company is focused on? What challenges/obstacles are you facing in accomplishing these goals? Currently, the company is focused on diversifying into adjacent regional electricity markets and expanding into longer duration electricity contracts. The main challenge we are faced in accomplishing these goals is ensuring that we are adequately capitalized to assume the risk inherent in these positions; to this end we are in the process of setting up our first offering to institutional/accredited investors looking to access this unique space.

Knowing what you know now, what advice would you give to yourself when you first graduated from MMF? Network like crazy. Learn not to see it as “networking” which often has negative connotations. Enjoy the process of meeting new people, hearing their stories and genuinely try to help those who you encounter. It all comes back to you and then some.

Running your own company is very demanding, how do you keep work/life balance? Put first things first. You won’t be able to perform effectively if you aren’t in good mental and physical health. This means working out on a regular basis, eating right, and spending time with your family. Finally, avoid a lengthy commute if you can.
Tell us about Kooltra? Kooltra is a Canadian Fintech reimagining foreign exchange. We provide market players of all sizes with a secure, scalable, and accessible solution to grow their FX business. Our customers span three continents, and we have processed over $250 billion in transactions to date.

What inspired you to start this company? I’ve always believed that capital markets should encourage as much competition and innovation as possible, and that this is best achieved through decentralization. A high number of smaller financial counterparties reduces risk, while maximizing the number of useful products and tailored services. I’m driven by the promise of cloud and other new technologies to empower these smaller players. I started Kooltra with a vision of using this technology to democratize capital markets. Several years working in a mid-tier FX firm taught me first-hand the barriers smaller institutions face. Structurally, transaction costs for wholesale liquidity have been pushed to near zero and regulators and banks had embraced fintechs, so we should have been fine. We weren’t. We were forced to compete by piecing together rigid, over-priced stand-alone software, or build everything from scratch. I spent more time integrating into market data than using market data to solve problems. We were leaving money on the table.

The solution I came to was to customize Salesforce.com’s platform to our needs. Salesforce provided me the ability to hack together a workflow I needed, while outsourcing IT infrastructure, security, and data compliance to the largest enterprise cloud in the world. Its AppExchange showed a scalable model for how to deliver enterprise-level products to small businesses.

Salesforce didn’t have any FX functionality or much of a financial markets footprint back then, so I approached them to start a partnership. Shortly thereafter, Kooltra was born. We built the first capital markets orientated vertical platform (Platform-in-a-Platform) whereby our users get all the benefits of Salesforce’s infrastructure, but with a capital markets platform layer sitting on top.

This layer has allowed Kooltra to build many apps (back and middle office) that are used in production by brokerages and trading desks all over the world. Once the platform has an FI’s data, apps can immediately be used to automated workflow processes plug and play, with no cost of integration or maintenance. Our platform is also an open development environment, meaning our customers can build secure applications using our APIs and libraries. Soon, we will allow these internally built apps to be sold on our App Exchange, thus creating a marketplace for back, middle, and front office applications. These applications have use not only in sell side institutions, but across treasury operations and risk. So we have come to call our solution a Treasury Risk Management and Operations Platform. Ideally, an FI should be able to setup their operations as easily on Kooltra as an individual sets up a new phone and applications. Whether the next person like myself is working in an innovative FX company, solving an interesting problem with Blockchain, or re-inventing finance in any other way, the Kooltra Platform will be a tool that will help them realize their vision in less time and at a fraction of the cost. I wake up every day excited that we can make a huge difference.

How did you come to know about the MMF Program? I met Luis Seco through Ron Dembo. I had spent a lot of time with Ron, who was the founder of Algorithmics and was a part of the founding of the MMF program. Luis liked my vision and encouraged me to engage with the MMF program. Shari and the rest of the MMF team have been very supportive as our relationship has grown.

We know that Brandon is your 1st MMF intern, how has this experience benefited Kooltra? Brandon was an ideal intern. He helped us push forward several financial engineering projects and helped to deployed several MVPs. We were very impressed with his level of knowledge after only one semester. Our entire development team benefited from Brandon’s knowledge and his ability to share complex financial ideas. We are excited for him to rejoin the team full time after completion of the program.

What provided the most influence for you in the world of finance and why? Liquidity and volatility are at the heart of finance. George Soros is my inspiration with regard to liquidity. His critics say his theories of reflexivity and fallibility are obvious, but Soros argues that they’re so obvious everyone overlooks them. In the world of finance we’re always dealing with uncertainty and everyone is trying to predict the future. From Soros I learned that to predict the future is to understand what everyone else thinks and then to understand how they will react to new information. If you look a few moves ahead and you know how people will react, the price of an asset will be determined by their bids and asks, not financial models.

My understanding of volatility, or more specifically implied volatility, came from Nassim Taleb. Most people underprice change. 10 years ago, oil was trading at $140 a barrel and peak oil was forecast within 10-20 years. 10 years later and Tesla is at all-time highs and oil is at $45. The only thing we can be certain about in the future is that things will change a lot. These ideas helped to define me as a contrarian risk-averse volatility seeker, and this positioned me to launch a career as a fintech entrepreneur.
**INTERNSHIP FEATURE**

Brandon Shute @ Kooltra

**MMF Class of 2017**

When did you realize a career in finance was something you wanted to pursue? Throughout my education, I always had a passion for mathematics and computer science. However, I did not know how I would choose to apply these skills to the real world once I finally graduated. In the second year of my undergraduate degree, I gained exposure to the field of finance by taking a few introductory finance courses. These courses not only sparked my fascination for finance, but they also made me aware of the endless applications that mathematics and computer science have in this field. It was at this point that I realized I was interested in pursuing a career in finance.

How/why did you decide to come to MMF? Around December in my fourth year, I was doing research on a variety of graduate programs when I came across MMF. I found the course list to be intriguing and was impressed by the competitive acceptance process. However, the main reason that I applied was due to the program’s 100 percent internship placement rate. This is an incredible statistic, and I thought an internship placement would provide me with opportunities that I might not have been exposed to coming from a small town with limited connections in the financial field.

Tell us about the work you’re doing in your internship at Kooltra (ie. what’s an average day like? Projects you’ve worked on?) During my internship, I helped build the risk management application on the Kooltra platform. It is difficult to describe what an average day was like because it tended to be quite different depending on the project or task I was working on. However, considering my internship as a whole, I spent around 40 percent of my time doing research, 30 percent building financial models and solving business problems, 20 percent programming, and the last 10 percent in meetings for consulting and problem solving. The main projects that I worked on included building an option pricing and risk analytics solution with help from a third-party software, aiding in the data collection and algorithm design for transaction monitoring, and building a profit and loss system for portfolio analytics.

How did your 1st semester at MMF best prepare you for your internship? Besides learning some concepts that applied directly to my role, the first semester of MMF prepared me for my internship by providing the tools necessary to be successful in a quantitative finance position. These tools allowed me to research a concept that applied directly to my role, the first semester of MMF prepared me for my internship by providing the tools necessary to be successful in a quantitative finance position. These tools allowed me to research a concept that applied directly to my role.

The MMF schedule is very intense, have you had time to keep up with your favourite sports teams? Although I was not always able to watch the sports or TV shows I wanted to each week, as a class we found fun activities to do together when free time sporadically appeared in our schedules.

Tell us about your journey from MMF to working in most major financial centers around the world? I never initially intended to travel and work abroad. It happened naturally through a combination of opportunities, curiosity, personal circumstances and ambition. My journey took me from Toronto to New York, then London, followed by Sydney and now I’m back in London working as a Trader for various international Banks.

As an alumnus from 2001, what are/is the major change(s) you’ve seen in the finance industry since graduation? The steep increase in regulation is definitely the major change since the Global Financial Crisis. It has deeply affected how we work and interact with clients and other stakeholders.

How would you describe the finance culture in London? As opposed to the other places you’ve lived and worked) I would say the finance culture everywhere closely mirrors those aspects of the local culture; seemingly more relaxed in Sydney, more polite in Toronto, more formal in London and less so in New York.

What advice would you give to MMF alumni who are interested in working abroad? You have to find in yourself that combination of being accommodating and flexible yet aggressive. You have to stay focused on your long term goals, and most importantly ask yourself why you really want to work abroad and if it would really suit your personal circumstances.

We know you’re really into health and fitness, what’s the last major fitness challenge you trained for? And/or are you training for now? I have been training in Brazilian Jiu-Jitsu for two years and it has become a true passion of mine. I compete every two/three months and I very recently won a gold medal at the British Open as a white belt in my category, which I am very proud of. I just received my blue belt and my next challenge will be the New York Open in a few months, but besides competing, I believe it’s very important to exercise regularly and stay healthy as we grow older.

**As a Director and Interest Rates Trader, tell us about what a typical work day is like for you? A typical work day starts very early. On my desk by around 6.30am, start up my spreadsheets; catch up on what has been happening overnight which can affect the markets. The rest of the day can be described as a single block, where I spent most of my time making prices for clients and aiming to generate revenues for the bank. I also have a few meetings here and there to deal with administrative issues.**

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The MMF Class of 2017 will be completing their Program at the end of July. If you would like to post a position for new grads, recent and/or senior alumni you may email us your submissions. In addition, if you would like to hire one of our students as an intern in 2018 please contact shari.kurgatnikov@utoronto.ca

www.mmf.utoronto.ca

MMF would like to thank AXIOMSL for sponsoring the MMF Reception