MASTERS OF financial insurance

MFI candidates 2020 - 2021

Statistical Sciences
UNIVERSITY OF TORONTO

What our industry partners say about MFI students:

"Very impressed by the superb technical skill, creativity, and professionalism shown by the MFI student we hired for the summer internship..... The work exceeded my expectations."

Emile Elefteriadis, Swiss Re

"It has been a great pleasure working with the MFI students. They are enthusiastic and engaged learners, which makes me feel more motivated about my teaching."

Ling Luo, Manulife

"I have found the MFI students to be hardworking, curious and intelligent."

Chen Muthukumaraswamy, WTW

Contents

Message from Program Director

First off, Sarah, Shari and I wish that you are all healthy and staying safe in these very challenging times. We are all treading uncharted and murky waters with currents that pull us in a myriad of directions. Yet, society and individuals are soldiering onwards and there is no doubt that we will come out of this stronger.

The Masters of Financial Insurance (MFI) professional program was launched in September 2016 to address the growing need for skilled professionals with the unique blend of data science, mathematical finance and insurance. Staying adaptable, this year the MFI Program moved courses online, as part of the University's overall response to stop the spread of COVID-19. It has its challenges, but there are also opportunities – e.g., students can now re-watch lectures, practitioners from Europe can easily participate in our seminars, and there is even more project-based content.

Since 2016, the MFI program has developed and grown rapidly and demand from students and employers has been beyond expectations - now in our fifth year we have grown to 26 students (over 60% women) and boast many partnerships ranging over all areas of finance, fintech, insurance, pensions, and consulting. Partner firms not only employ our highly qualified candidates, but industry professionals also co-teach courses, develop curriculum, deliver seminars, and visit the Program to speak about their particular field of expertise. This exposure and connection to industry provides our students with unique learning opportunities and key insider knowledge.

The response we receive from industry partners on the quality of the students and their training is second to none, and we are confident that our alumni will become leaders in the field and make important contributions here, in Canada, and beyond.

We are confident that if you offer a summer (or longer) opportunity to an MFI candidate from the Class of 2021, you will be impressed with their intellect, professionalism, and knowledge.

Professor and Director of the MFI Program
Sebastian Jaimungal

Outline of Program

The Department of Statistical Sciences offers the Master of Financial Insurance Program (MFI), a full-time professional program focused on producing students who will become leaders in the global finance, fintech, and insurance industry. The program stands on three pillars: data science, financial mathematics, and insurance modeling. It provides students with education at the interface of these domains with sufficient depth and breadth so that students can provide both detailed analysis of finance and insurance risks, as well as provide a bird's-eye perspective on how the embedded risks affect the firm enterprise wide.

The program is particularly appropriate for students with backgrounds in statistics, actuarial science, economics, and mathematics, or students with a quantitative background (such as those in physics and engineering). While students have different backgrounds coming into the program, they are trained together as one cohort. In the first semester, students are exposed to core theory and methodology, in addition to numerous industrial seminars. While in the second semester, they work on a variety of case studies and projects led by industry professionals.

The MFI Program runs for 12 months, from September to August. Students take academic courses in the first two semesters with the program culminating in a 16 week work-term placement designed to provide real-world experience in finance and/or insurance. As an added bonus students are ready to start full time work or extend their contracts into September!

SEPTEMBER TO DECEMBER

JANUARY TO APRIL

MAY TO AUGUST

FROM SEPTEMBER AVAILABLE FOR FULL TIME WORK!

FIRST SEMESTER

Applied Probability for Mathematical Finance
Applied Time-Series Analysis
Life Insurance Mathematics
Data Science for Risk Modeling
Industrial Seminar Series (Part 1)

SECOND SEMESTER

Financial Risk Management
Finance and Insurance Case Studies
Numerical Methods for Finance & Insurance
Data Science in Practice
One Elective Course in a Related Topic
Industrial Seminar Series (Part 2)

Foundation of Program

Traditionally, the finance and insurance worlds are quite distinct, but this distinction is disappearing. Financial firms are taking exposure to insurance risks, insurance companies are providing guarantees to their clients that fundamentally intertwines them with the financial markets, and pension plans provide income guarantees which profoundly link their obligations to the these markets. The Masters of Financial Insurance (MFI) program answers the growing need from industry to fulfil this unique skill set.

The MFI is a professional program that provides candidates with a sophisticated understanding of this complex interaction of the financial and insurance fields. The program contains a comprehensive set of offerings and students gain rigorous training in data science, actuarial science and finance. Graduates from this program are versatile and well armed to face the highly skilled work required of them in the banking, insurance, pension, fintech, and consulting industries.

Hiring a Work Term Student

You can test drive new "pre-professionals" through a cost effective, risk free environment and also shape the training of future professionals by offering feedback to the program. Bringing an MFI graduate student on board for a work placement either for the summer term or in an extended contract - as the students are available for full time, or longer term contract employment immediately after the summer - is an excellent way to connect with emerging high achieving professionals, and bring new thinking and strategy to your organization.

The students presented in this resume book will be well-prepared to bring their competencies, knowledge and expertise to your organization in May 2021.

Partners and Supporters from Industry

We are immensely grateful for the interest shown by our industry partners in supporting the next generation of industry professionals and our partners are continually growing.

- Aon
- Aon Pathwise ™
- AxiomSL
- Bank of Montreal
- Berkshire Hathaway Group Reinsurance
- Canada Life
- Canada Mortgage & Housing Association
- Coinsquare
- CI Investments
- CIBC
- CPPIB
- d1g1t
- Forester's Financial
- Great-West Life
- Hannover Reinsurance
- High Street Asset Management
- IBM
- Manulife
- Moody's Analytics
- Munich Reinsurance
- Oanda
- Ontario Ministry of Finance
- Ontario Teachers' Pension Plan
- OPSEU Pension Trust (OPTrust)
- Proviti
- Polar Asset Management
- Royal Bank of Canada
- RBC Insurance
- RSA
- Scotiabank

- Sun Life Financial
- Swiss Reinsurance
- TD
- TMX
- Wawanesa
- Willis Towers Watson

Ways to Get Involved

The MFI Team has been impressed by the enthusiasm and support given by industry partners. You can be involved not only by providing summer work terms for our candidates but also in other ways:

- **Attending our annual fall reception**
- **Delivering a guest lecture to our students**
- **Hosting a company tour or information session**
- **Sponsoring MFI events such as the MFI Fall Reception or Alumni Socials**
- **Mentoring a student**
- **Providing an informational interview**
- **Offering mock interviews and feedback**
- **Hosting an on-campus information session**
- **Hiring a recent graduate**
- **Participating on an advisory board**

What Industry Partners Have To Say

"Thank you, team MFI at the University of Toronto, for creating an amazing program with bright, well rounded, hard-working students with amazing knowledge and technical skills, ready to contribute in today's data driven world. Your program is directed by a group of amazing people (Shari and Sarah) who are a true pleasure to deal with and make it simple to communicate.
Our MFI intern (Jiayan Yang) was ready to contribute from day one. In her role, Jiayan was involved in creating multiple strategic predictive models and heavily engaged in automating a reporting package. She has quickly gained knowledge of all software programs necessary to perform her job and on top of that created learning sessions for other analysts and managers at the Bank to provide basics of Python software package as well as new analytical methodologies and techniques.
Jiayan is a pleasure to work with. She is a quick learner, very focused on task at hand and delivers results very quickly. Her technical skills are exactly what today's analytical world requires. Jiayan surely exceeds my expectation and that's why she was offered a second work term with our organization. Thank you Jiayan and team MFI!"

- - BMO

"The MFI program exceeded my expectations in terms of connecting us with a candidate whose capability added value both in the near term and potential long term. The MFI candidate was a great fit for the team, interacting seamlessly with our current staff and proactively seeking out networking opportunities. Our MFI candidate's excellent level of engagement, general curiosity and ability to tackle a steep learning curve is what set her apart from other candidates we interviewed and internships experienced in the past."

- - RBC

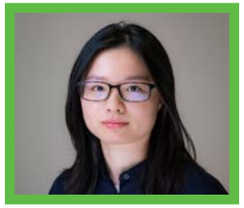
"Very impressed by the superb technical skill, creativity, and professionalism shown by the MFI student we hired for the summer internship.....We had a complex model building project that required not only some sophisticated modeling and an intuitive interface, but required navigating ambiguity and good cross functional teamwork. The work exceeded my expectations. There was of course even more we threw at the MFI student, who handled it all with enthusiasm and a smile on his face."

- - Swiss Reinsurance

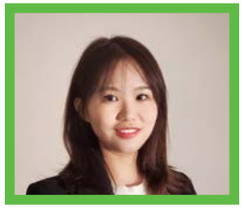
Student Profiles


Sirui Bai


Zhichun (Michelle) Kang


Qiandan (Tanya) Deng


Chi Fung (Leo) Leung


Tunan (Kris) Jia


Fengjiao (Betty) Li


Rong (Belle) Jiang


Qianqian (Lydia) Li


Zixuan (Leo) Lin


Yangshan (Lance) Liu


Yuzhou Liu


Tianyu (Erin) Ma


Yuhui (Rika) Liu

The student profiles featured are an overview.
If you wish to review the complete resumes of any of
our talented cohort please contact
the MFI Office
(mfi.info@utoronto.ca).


Huasi (Iris) Ou


Jingyao (Joyce) Qiao


Shiya (Sophie) Ou


Qiwen (Wendy) Wang


Kevin Wang


Yuling (Tim) Wang


Chenming Ye


Hongda (William) Wu


Ruolin Yuan


Hanzhi (Jessie) Wu


Yuxuan (Gina) Zhang


Yaru Yang


Sichao (Michael) Zhu

Sirui Bai

Sirui is an accomplished and highly self-motivated, analytical professional with strong quantitative research and statistical analysis skills combined with exceptional academic and projects. She has excellent communication skills and a proven ability to juggle multiple high priority tasks.

EDUCATION

Master of Financial Insurance
University of Toronto
2020 - 2021

BMath (Honours)
Actuarial Science & Statistics
University of Waterloo
2020
President's Scholarship: 2017

SKILLS

Programming: R; Python; SAS; SQL; MS Excel; Basic HTML

PROFESSIONAL CERTIFICATES/AWARDS

Society of Actuaries
FM (Financial Mathematics)

INTERESTS/ACTIVITIES

Hult Prize Challenge 2018: Participant

EXPERIENCE

Project: Exploratory Data Analysis of Titanic Dataset September 2020
Analyzing & Processing Data in Python

- Imported pandas, seaborn, matplotlib & sklearn to process and visualize the relationships between the survival rates and 11 features; with data obtained from Kaggle
- Trained different machine learning models, & Random Forest was selected as the best performance on prediction of the survival & measurement of the feature importance.
- Used K-Fold Cross Validation for parameters
- Computed precision and recall by F-score, & plotted them by ROC AUC curve; obtained a ROC AUC score of 94.5%

Project: Prediction of COVID19 Pandemic Data April 2020
Applications of ARIMA and Regression Models

- Demonstrated solid data analysis skills through extracting the real number of infected people per day in Canada & fitted into the different regression & ARIMA models, to optimize the next step analysis.
- Evaluated the prediction performance of those models using the PRESS statistic and test data
- Predicted the total number of infected people in Canada for next 100 days using the superior models, results showing a dramatic increase.

Grace and Healthy Dumplings, Waterloo June 2017-
Store Manager April 2019

- Showed excellent project management & leadership skills by assigning tasks to individuals & scheduling of employees
- Demonstrated outstanding communication and interpersonal skills by delivering quality service

Qiandan (Tanya) Deng

Tanya has a comprehensive understanding of financial and statistical modeling, and risk management. She possesses strong quantitative, analytical, and problem-solving skills and is a detailed-oriented, self-motivated person with strong verbal and written communication skills. A dedicated team player with superior time-management skills, Tanya has a proven ability to multi-task.

EDUCATION

Master of Financial Insurance
University of Toronto
2020 - 2021

BSc (High Distinction)
Mathematical Applications
in Economics & Finance (Specialist)
University of Toronto
2020
New College In-Course Scholarship
Dean's List Scholar

SKILLS

Programming: MS Excel; Tableau; R; Python; SQL; SAS; MATLAB

PROFESSIONAL CERTIFICATES/AWARDS

CFA Level 1: Pass
FRM Level 1 Candidate

INTERESTS/ACTIVITIES

U of T Table Tennis Team
2017 - 2019

EXPERIENCE

Beam Data, Toronto May 2020-
Data Science Consultant August 2020

Project: Recommendation System for Sponsor Circle Inc.

- Collaborated effectively to build a recommendation system using machine learning techniques which potentially increased the company's efficiency by 30%
- Developed a project plan that guided the team
- Proposed core ideas of the model through independent research
- Implemented algorithm using Python achieved 86% precision score
- Utilized web-scraping to collect 400+ articles
- Presented and discussed results with clients

Project: Sales Analytics for Thurso Surf

- Performed data cleansing on 10000+ rows of historical sales and inventory data. Conducted detailed analysis, generated visualizations using Python, & derived actionable insights
- Automated and templated visualizations to reduce the data processing time by 70% for future analysis
- Prepared reports that interpret customer behavior. Helped the clients take proactive business decisions

Project: Loan Default Prediction Modeling June 2019

- Loaded 8 raw datasets into MYSQL database; joined and cleaned 1 million rows of data; prevented data leakage
- Imported tables into Pandas DataFrame and performed feature engineering; Trained Logistic Regression, Random Forest, and Gradient Boosting models; Performed cross-validation
- Tuned hyperparameters using GridSearch; achieved a precision score of 88%
- Gained hands-on experience in predictive modeling; prepared slides to present to students and instructors

Tunan (Kris) Jia

Kris is a high energy, results-oriented self-starter with the ability to achieve under tight deadlines. She has the ability to communicate clearly and concisely with both technical and non-technical audiences. Kris has intellectual curiosity and a fundamental knowledge of the financial market, Machine Learning, and insurance products.

EDUCATION

Master of Financial Insurance
University of Toronto
2020 - 2021

BSc (Honours)
Actuarial Science & Mathematics;
University of Toronto
2020

SKILLS

Programming: Python; R; SQL; Tableau; MS Excel (VBA); AXIS

PROFESSIONAL CERTIFICATES/AWARDS

Society of Actuaries
P (Probability);
FM (Financial Mathematics);
IFM (Investment & Financial Markets); SRM (Statistics for Risk Modeling);
STAM (Short Term Actuarial Mathematics;

FSA Candidate
IBM Data Science: Coursera

INTERESTS/ACTIVITIES

Painting Tutor & Works Exhibition: Organizer

EXPERIENCE

Huatai Life Insurance Group, Beijing, China — May 2019-August 2019
Actuarial Pricing Intern

- Collected sales record from 2008 to 2018, per-capital income released by National Statistic Agency, cleaned the data in Excel & collaborated with internal teams to develop advanced analysis & modeling methods to drive deeper insights
- Analyzed the price trends from multiple perspective of regions, time, and business lines to quantify the impact of policyholders' wealth level on product pricing
- Delivered multiple presentations with comprehensive results & graphs to the team to identify revenue opportunities based on information gathered from current trends, competition & strategy
- Refined a TL pricing model to value the performance of the product, enhanced the results demonstration & automated the GP calculation by using VBA to reduce manual work and improve accuracy
- Tested the APE & NBM with the inputs of mortality, lapse & expense of a CI product upon pricing & reserving basis using VBA, documented the results in an appropriate format to prepare for IA report
- Collaborated with the financial team to reconcile quarterly premium processes using SQL and Excel

Projects
Data Analyst Learning: XiaoZao
Credit Risk Modeling: Risk Lab Case Competition
P&C Reserving: University of Toronto

Rong (Belle) Jiang

Rong has a comprehensive understanding in the option investment industry, and experienced in quantitative analysis and financial modeling. Being a fast learner and adaptable to new environments, she has strong tact, diplomacy and presentation skills acquired from work experience.

EDUCATION

Master of Financial Insurance
University of Toronto
2020 - 2021

BSc (Honours) with High Distinction
Matheatical Application
in Finance & Economics
University of Toronto
2020

Dean's List Scholar: 2017; 2019

SKILLS

Programming: MySQL; Python; STATA; LaTeX; R
Wind (Chinese Bloomberg)

PROFESSIONAL CERTIFICATES/AWARDS

CFA Level I Candidate

INTERESTS/ACTIVITIES

Piano; Guitar; Traveling; Hiking; Cooking; KPop

EXPERIENCE

University of Toronto — September 2020-Present
Teaching Assistant

- Responsible for quizzes and exam grading, provide the professor with feedback related to student performance
- Deliver virtual tutorials and office hours with students

Shanghai KingRally Portfolio Management Co., China — July 2019-September 2019
Internship, Investment Department

- Organized all statistics of 50ETF options (more than a trillion), store them in database developed by MySQL.
- Used MySQL database & Wind to write programs in Python which analyze options' implied volatility, Greeks, & other statistics, which assisted decisions on trading strategies
- Wrote programs in R and Python to fit GARCH model, tested with SSE50 index & CSI300 index; made prediction on future volatility

BP Sinopec Zhejiang Petroleum Company, Ltd, China — December 2016-January 2017
Internship, GM Assistant

- Interpreted & analysed sales of non-oil goods in gas stations province using Excel and other Microsoft tools; made predictions & provided advice on inventory for the following year
- Provided assistance on customer satisfaction survey project including data collection and data analysis
- Wrote articles which were published on official social media, content of articles included sales promotion, gas station safety promotion event, & general station updates

Zhichun (Michelle) Kang

Michelle has insurance industry experience in both Life & Health pricing & valuation groups, with proven practice in pricing modeling & actuarial valuation. She possesses problem-solving skills, with a positive and dedicated attitude. She is an excellent team player, with effective interpersonal skills & rich leadership experience.

EDUCATION

Master of Financial Insurance
University of Toronto
2019 - 2020

BSc (Honours)
Actuarial Science & Statistics
University of Toronto
2020

Dean's List: 2016 - 2019

SKILLS

Programming: R; STATA; VBA; SQL; MS Excel; GGY AXIS

PROFESSIONAL CERTIFICATES/AWARDS

Society of Actuaries
P (Probability); FM (Financial Mathematics); IFM (Investment & Financial Markets)

INTERESTS/ACTIVITIES

U of T Actuarial Science Club:
Marketing Director
Yoga & Meditation

EXPERIENCE

EY, Beijing — August 2020-Present
Actuarial Intern, Actuarial Life Consulting

- Processed census data, assisted in preparing complex actuarial valuations & related financial disclosures
- Took an active engagement in initiating a modelling project for reconciling cash flows in GGY AXIS model
- Prepared & assisted with client presentations

Munich Re, Hong Kong — January 2020-June 2020
Actuarial Intern, Life & Health Pricing

- Initialized a facultative group health quotation model, & applied to premium rate adjustments for all client cases
- Assisted on data analysis for the ASHK Mortality Experience Study Report
- Built a new procedure for creating checking templates for reconciling client's statement of account and preparing for annual audit: remapping Reinsurance Sum at Risk, Reinsurance Premium, Commission, Profit-Commission, and Claim

Partner Re, Toronto — May 2019-September 2019
Actuarial Intern, U.S. Life Valuation

- Assisted in preparation of quarterly statistical valuation for U.S. line of business in production model
- Transferred current Axis valuation model to the 'Rules table' framework making the model manageable
- Initialized an Access model to analyze influential risk categories for 150,000+ base tables at one time and took an initiative to build a VBA model to automatically generate over 700 'Rules Tables' scripts

Chi Fung (Leo) Leung

Leo is an ASA with overseas actuarial exposure in various actuarial functions, including Pricing, Valuation and Economic Capital. He has demonstrated excellent communication, critical thinking, problem solving, and interpersonal skills through education and work exprerience. Leo also has experience in Solvency II, IFRS reporting and ALM.

EDUCATION

Master of Financial Insurance
University of Toronto
2020 - 2021

BSc Actuarial Science
University of Hong Kong
2017

HKU Foundation Scholarship for Outstanding Students
2012

SKILLS

Programming: VBA; SQL; AXIS; familiar with SAS; Python

PROFESSIONAL CERTIFICATES/AWARDS

Society of Actuaries
Associate: 2018

INTERESTS/ACTIVITIES

Chairman – Science Society, HKUSU

EXPERIENCE

Hang Seng Insurance, Hong Kong — April 2018-August 2020
Management Trainee, Actuarial

- Monitored lapse rate of annuity products
- Assessed profitability of term products
- Refined on policyholder's illustration based on GL16 requirements
- Conducted asset liability matching and reallocated assets to back liabilities of existing in-force policy blocks
- Reviewed economic assumptions and brought +USD 50M profit before tax impact to the company
- Assisted HKRBC QIS3.0 submission

CXA Group Ltd., Hong Kong — July 2017-January 2018
Benefits Analyst

- Analyzed employee benefit structure of top tier retail stores of over 1000 employees across APAC region
- Analyzed claims experience for top tier luxury brands & IT firms

RGA Insurance, Hong Kong — January 2015-June 2015
Actuarial Intern (Pricing Team)

- Handled group clients' enquiries and facultative quotation pricing
- Assisted in experience studies and medical review
- Contributed to enhancement in pricing ssumptions using AXIS

Manulife Financial Asia Ltd., Hong Kong — August 2014-December 2014
Actuarial Intern

- Assisted in New Business Planning for the region
- Built VBA model to analyze business data from The Philippines within tight deadline
- Assisted in preparation of quarterly risk report of the region

Fengjiao (Betty) Li

Betty possesses a solid knowledge in finance, actuarial science, and statistics through academic study. She displays exceptional problem-solving and multi-tasking skills demonstrated through academic and work experience. Self-motivated with strong desire to learn and contribute in team settings, Betty also has multicultural experience and communication skills gained from volunteer and exchange study.

EDUCATION

Master of Financial Insurance
University of Toronto
2020 - 2021

BMath (Honours)
Actuarial Science & Statistics
University of Waterloo
2019
International Experience Award 2018

Education Abroad (Exchange)
University of Hong Kong
September - December 2018

SKILLS

Programming: VBA; R; SAS; Scheme (Racket); Python; C

PROFESSIONAL CERTIFICATES/AWARDS

Society of Actuaries
P (Probability);
FM (Financial Mathematics);
LTAM (Long Term Actuarial Mathematics);
SRM (Statistics for Risk Modeling);
STAM (Short Term Actuarial Mathematics

SAS Certification: Base & Advanced Programming for SAS 9

INTERESTS/ACTIVITIES

UWaterloo Open House: Campus Representative

EXPERIENCE

Dinghe Property Insurance Co., Ltd., China — October 2019-June 2020
Actuarial Assistant

- Extracted and cleaned data; conducted K-means/DBSCAN clustering analysis for risk classification on large amount of customer data
- Analyzed risk factors and conducted risk selection by applying statistical and predictive models (GLM)
- Assisted in adjusting claim amounts to evaluate IBNR reserves for claims
- Summarized and updated new insurance regulations for the Marketing Department to develop new products

Bank of China (Laiyang), China — Summer 2018
Summer Intern, Risk Management

- Conducted risk evaluation of co-operative companies; assisted in conducting decision tree algorithm to classify risk factors
- Responsible for collecting essential market and target corporations' information to assist supervisors in risk evaluation

City of Toronto, Toronto city Cultural Event (TCCE) — 2014 - Ongoing
Volunteer

- Participated in multiple city-wide cultural events (Doors Open Event, Canadian Aboriginal Day, etc.)

Qianqian (Lydia) Li

Lydia possesses strong time management, critical thinking, and excellent interpersonal skills demonstrated from rich internship experiences. She is passionate in pursuing a career in the financial and insurance industry with a strong curiosity for learning new skills.

EDUCATION

Master of Financial Insurance
University of Toronto
2020 - 2021

BSc Honours
Actuarial Science & Statistics
University of Toronto
2020
Basic Reserving Methods for P&C Insurance; Insurance Products & Regulation with AXIS

Dean's List: 2017/18/19/20

U of T New College In-Course Scholarship

SKILLS

Programming: Python; R; VBA
MOODY'S AXIS

PROFESSIONAL CERTIFICATES/AWARDS

Society of Actuaries
P (Probability);
FM (Financial Mathematics);
STAM (Short Term Actuarial Mathematics;
IFM (Investment & Financial Markets);
SRM (Statistical Risk Modeling)

INTERESTS/ACTIVITIES

Painting & Sketching; Travelling; Baking; Jogging

EXPERIENCE

Healthcare of Ontario Pension Plan (HOOPP), Toronto — May 2020-Present & May 2019-August 2019
Actuarial Student, Plan Operation, Division of Actuarial Service

- Collaborated with calculation specialists using ArielDB including transfer-in, termination and retirement calculations for over 3700 members
- Assisted in investigating the defects actuarial tools to ensure the pension process was accurate
- Developed multiple pension/termination test-cases to ensure actuarial concepts are employed in member services
- Developed data management skills from reviewing and organizing relevant data, interpreting and visualizing the data to investigate any potential issues on pension plan development
- Assisted in preparing presentation materials about updates for the pension plan; demonstrated excellent verbal and written communication skills and interpersonal skills through working closely across departments

Investors Group Financial Services Inc., Mississauga — April 2017-June 2017
Financial Advisor Assistant

- Obtained substantial data analytical skills from collecting, sorting & analyzing data from clients' portfolios & interviews to providing suggestions on insurance product development
- Gained insights of the insurance industry and products by conducting research, including reviewing industry reports, extracting relevant data from multiple resources, and analyzing data to assist in developing financial proposals

Zixuan (Leo) Lin

Leo has seven months actuarial analysis experience in life/health insurance, including experience studies and product research. He also has experience of predictive analysis using R, generalized linear models, decision trees, and data visualization.

EDUCATION

Master of Financial Insurance
University of Toronto
2020 - 2021

BBA
Actuarial Science & Statistics
Temple University
2018

Gamma Iota Sigma Professional Risk Management:
Insurance and Actuarial Science Fraternity - Membership with Academic Distinction
Dean's List, Fox School of Business

SKILLS

Programming: SQL; R; Python; MS Excel

PROFESSIONAL CERTIFICATES/AWARDS

Society of Actuaries
P (Probability); FM (Financial Mathematics); MFE (Models for Financial Economics; LTAM (Long Term Actuarial Mathematics); SRM (Statistics for Risk Modeling); STAM (Short Term Actuarial Mathematics; all VEE credits

INTERESTS/ACTIVITIES

Temple University: Fox Peer Teacher

EXPERIENCE

Hannover Re, Shanghai, China — May 2020-
P&C Actuarial Intern — August 2020

- Built pricing models for short term health insurance based on historical data, fitting frequency & severity models and validating different distribution assumptions
- Analyzed incidence & lapse rate between illnesses by processing 5,000,000+ records of treaties & amendments in SQL
- Researched incidence rates, medical expenses therapies on Alzheimer Disease & Hypertension Complications, supporting senior actuaries for pricing quotes and innovation in health insurance

Munich Re, Beijing, China — March 2019-
Financial Actuarial Intern — July 2019

- Collaborated with teammates & manager to standardize clients' treaties using SQL & Excel & maintained product database
- Computed loss ratio & Actual/Expected ratio & applied Chain Ladder Method to update IBNR, optimizing product profitability
- Prepared treaty summary for China mainland market, checked treaty details to reduce significant accounting error

Versailles Group Ltd., Chicago, U.S. — May 2018-
Mergers & Acquisition Intern — June 2018

- Modified offering memorandum for 5 companies; performed company research & financial statement analysis, forecasting and financial modeling (discounted cash flow) to examine company's market value
- Attracted 300+ potential buyers through social media and achieved a 25% response rate
- Attended conference calls and met with clients, negotiated with buyers under senior manager

Yangshan (Lance) Liu

Lance possesses outstanding communication, critical thinking, analytical, and leadership skills honed through communication with government, security firms, audit firms, and law firms, and also through organizing large events. He has a strong interest and academic background to further his career in data science.

EDUCATION

Master of Financial Insurance
University of Toronto
2020 - 2021

BSc (Honours)
Mathematics Application in Economics & Finance Specialist
University of Toronto
2020

SKILLS

Programming: VBA; Python; SQL; R; Tableau

PROFESSIONAL CERTIFICATES/AWARDS

CFA Level 1
2019
SAS Base & Advanced Certificate
IBM Data Science Professional Certificate: Coursera

CICC international student investment case competition: First Place 2019
Chinese Debate Championship 2017

INTERESTS/ACTIVITIES

Swimming (national athlete); Board Games

EXPERIENCE

Sinolink Securities, Beijing, China — June 2020-
Investment Bank Department Intern — August 2020

- Participated in the Jiheng Pharmaceutical Co. Ltd IPO Project
- Demonstrated strong interpersonal skills by coordinating with representatives, audit firm & law firm to ensure smooth project completion
- Exhibited strong analytical skills by conducting thorough statistical research on over 5000 data points with Excel & constructing Excel models to assist with data storage
- Assisted in industrial research, developed model in Excel to reveal significant industry trends, & abstracted qualitative implications; demonstrated excellent proficiency of data processing tools
- Summarized results into the final proposal about safety management improvement, presented to the manager, resulting in the construction department adopting the proposal in two other projects

Roland Berger, Shanghai, China — April 2019-
Consuting Intern — May 2020

- Implemented market research & strategic communications projects by designing questionnaires, cleaning data sets, analyzing research results, & creating report 'A New Future for Commercial Vehicles'
- Exhibited exceptional critical thinking skills organizing interview memos with an understanding of investigation topic, & abstracting key information
- Supported project management tracking status, creating timelines, & ensuring accuracy.
- Prepared clients by creating plan & providing daily updates throughout their participation.

Yuhui (Rika) Liu

Rika has demonstrated expertise in quantitative methodologies and a solid understanding of financial economics theory and practice. She has practical experience in the financial industry, including internships in top financial institutions in both the U.S. and China. Rika also has proven team leadership capabilities and outstanding communication skills within a fast-paced competitive environment.

EDUCATION

Master of Financial Insurance
University of Toronto
2020 - 2021

BA (Honours) with Distinction
Mathematical Economics
(Mathematics & Economics)
University of Waterloo
2020

Project: The Magnet Effect of Daily Price Limits: Evidence from the Chinese Stock Market
Project: Forecasting Volatility of Different Stock Markets Using EGARCH

SKILLS

Programming: Python; R; MATLAB; SQL; VBA
MS Excel, PowerPoint, Access

PROFESSIONAL CERTIFICATES/AWARDS

CFA Level I Candidate

INTERESTS/ACTIVITIES

Quantify Risk & Insurance Case Competition: Team Leader 2019

EXPERIENCE

Marto-HG Digital Asset Group, NYC, New York — May 2019-August 2019
Cryptocurrency Analyst Intern

- Collected data of major cryptocurrencies worldwide & developed ARIMA models to forecast their price trends
- Researched the cryptocurrency market & prepared weekly reports for senior management's review
- Assisted portfolio managers to provide investors with investment recommendations in the format of presentation materials

Acceleration Capital Group, NYC, New York — December 2018-January 2019
Hedge Fund Analyst

- Conducted statistical analysis on stocks in targeted hedge funds' portfolio allocations with due diligence;
- Collected & researched target companies' information &d historical data to evaluate their financial performance
- Presented investment recommendation reports to senior-level analysts accordingly;

University of Waterloo, Waterloo — January 2018-May 2018
Teaching Assistant

- Conducted tutorials, labs & workshops to provide support & guidance to students;
- Led individual tutorials for students who needed extra support
- Graded assignments, quizzes and term exams & invigilated tests

Bank of China, Weihai, China — January 2017-March 2017
Asset Management Intern

- Worked as part of the wealth management team to compile and analyze data, & track information according to clients' needs
- Collaborated with peers to build and develop relationships with existing and new VIP clients

Yuzhou Liu

Yuzhou is passionate about using the power of data science & technologies to solve challenging tasks in business. He is a keen learner with ability to multi-task under pressure demonstrated through his double degree studies. He has well-rounded experience in various analytics roles, including product management, system analysis, actuarial valuation & business analysis.

EDUCATION

Master of Financial Insurance
University of Toronto
2020 - 2021

BSc & BEcon
Statistics & Actuarial Science
Jilin University
2019

SKILLS

MS Excel VBA; SQL; Python; R; MATLAB; SPSS;
Familiar with C; Prophet

PROFESSIONAL CERTIFICATES/AWARDS

Society of Actuaries
P (Probability);
FM (Financial Mathematics)

COMAP's Mathematical Contest in Modelling: Meritorious Winner 2018

Mathematical Competition of Chinese College Students: Scholarship 2018

INTERESTS/ACTIVITIES

3rd Japan-China Joint Forum: Researcher
On-Campus Volunteer

EXPERIENCE

ByteDance Ltd., Beijing, China — August 2020-Present
Data Product Manager Intern, Monetization Product

- Carried out functional design, interface optimization, testing, and application for the iteration of toB labeling platform to optimize the targeted advertising
- Promoted the development of a content understanding system to target user interests and behaviors through effective identification and classification of texts and videos by scenes
- Validated model feasibility and effectiveness through evaluation index system, flow experimentation, and A/B test

Accenture (China) Co., Ltd., Shanghai, China — August 2019-December 2019
Consulting Intern, Financial Services

- Participated in Data System & Process project for pension company, resulting in more efficient analysis systems
- Analyzed system structure & automated data process
- Provided solutions of quantitative methods transition for actuary & finance sectors due to the IFRS17 implementation

Ping An Life Insurance Company of China, Shenzhen, China — March 2019-June 2019
Intern, Actuarial Valuation

- Developed tools for data access & empirical analysis (Oracle, Excel); rewrote 100+ scripts from SQL to Python
- Analyzed historical incidence data based on the risk exposure calculation and reported the fluctuation
- Revised the policy continuation rate assessment; analyzed reasons for the rate decline internally & externally

Tianyu (Erin) Ma

Erin is self-motivated and passionate for finding optimal and innovative solutions. She has a solid academic and technical background, accompanied by proven working knowledge. With excellent leadership and communication skills, she speedily adapts to new environments and is eager to solve challenging problems.

EDUCATION

Master of Financial Insurance
University of Toronto
2020 - 2021

BMath (Honours) with Distinction
Actuarial Science & Statistics
University of Waterloo
2020
Relevant courses: Life Contingencies; Pension; Forecasting; Computational Statistics; Data Analysis

University of Waterloo President's Scholarship
2016

SKILLS

Programming: Python; VBA; Racket; SQL; R; SAS

PROFESSIONAL CERTIFICATES/AWARDS

Society of Actuaries
P (Probability);
FM (Financial Mathematics);
LTAM (Long Term Actuarial Mathematics)
& all VEE credits

INTERESTS/ACTIVITIES

UWaterloo Actuarial Science Club: Executive Member
Chinese 21-string Zither (Passed Level 9 Test); Baking; Yoga; Volunteer

EXPERIENCE

Microsoft, Beijing, China — May 2019-August 2019
Data Analyst Intern

- Analyzed data extracted from SQL Azure databases in China & Japan; implemented software functions in Scope
- Completed technology-based data reports with Power BI & implemented real-time monitoring of data changes
- Performed routine tasks of data cleaning by reviewing computer reports, printouts & performance indicators to locate and correct coding problems in Python
- Participated in business analysis for the product team with data mining techniques & achieved 2% advertisement revenue increase

Hack the North, Waterloo — September 2018
Group Facilitator

- Assigned 20 group members to different sections & responsible for all emergencies; developed strong problem-solving skills & the capability to adapt to over-changing environment
- Developed strong leadership, communication, & teamwork skills

Pennon Education Group, Jinan, China — May 2018-August 2018
Math Teaching Assistant

- Prepared tutorials designed to cultivate strong presentation & critical thinking skills for 30 students
- Developed skills in Microsoft Office & Adobe Premiere Pro

Forecasting Project — March 2019

- Demonstrated solid data analysis skills through removing missing values & cleaning thousands data by using data transformation & imputation in Python

Huasi (Iris) Ou

Iris has strong analytical skills and solid scientific research skills gained through academic study, undergraduate lab courses and as a lab intern in the pharmacological field. Detail oriented with the ability to work collaboratively in a team environment, she has excellent leadership and communication skills with experience in organizing various on-campus and volunteer activities.

EDUCATION

Master of Financial Insurance
University of Toronto
2020 - 2021

BA (Honours) Economics
York University
2020

BSc (Honours) Pharmacy
Foshan University
2017

SKILLS

Programming: Python; R; SAS; VBA; Excel

PROFESSIONAL CERTIFICATES/AWARDS

SAS Advanced Certification 2018
Financial Markets: Yale University 2019

INTERESTS/ACTIVITIES

Professional Latin
Professional Latin & Korean Pop Dancing

EXPERIENCE

Blockstation — October 2019-April 2020
Analytical Intern

- Analyzed data & performed data visualization projects of legacy IPO and tokenized IPO by using Microsoft Excel and Python, the results were used in analyzing & presenting
- Researched and made comparisons to support reports examining digital asset market
- Refined and enhanced applicative knowledge of statistical methods & concepts while conforming to tight deadlines

Guangdong XiangHe Chinese Medicine Pharmacological Factory — December 2016-May 2017
Lab Intern

- Performed ingredient quality analysis of the medicines by extracting & analyzing, which provided various detailed experimental data
- Designed template for report & automated the process of calculation, significantly improving quantitative proficiency of delivering multiple quality reports
- Oversaw the distribution & packaging of medicines in an effective manner, significantly reducing the drug shortage & improving the efficiency in drug allocation

Markham Councilor Community — October 2018-July 2019
Event Organizer & Host

- Organized the councilor's campaign events including planning advertising, community events & public speaking (MC), which contributed to the success of election campaign

Shiya (Sophie) Ou

Sophie has a strong quantitative background & financial analytical skills gained from professional experience in the insurance industry. She is detail oriented, able to meet conflicting deadlines, and deal with stressful situations in a calm, professional manner.

EDUCATION

Master of Financial Insurance
University of Toronto
2020 - 2021

BSc (Honours) Actuarial Science
University of Western Ontario
2020

Dean's Honour List: 2016-20

Credit Risk Project:
Manipulating data & analyzing credit risk ratings & reporting results
2020

SKILLS

Programming: R; Python; SAS; SQL; LaTeX; MS Excel

PROFESSIONAL CERTIFICATES/AWARDS

Society of Actuaries
P (Probability);
FM (Financial Mathematics)

SAS 9.4 Base Programming Certificate

INTERESTS/ACTIVITIES

Swim Varsity, London, ON
Frontier College, London, ON: Volunteer
Chinese Student & Scholars Association: Event Executive
Western Golden A: Tutor - Actuarial Science

EXPERIENCE

Munich Re, Singapore — July 2020-September 2020
Actuarial Intern (Remote)

- Collected & analyzed quotations, product features for RBC & BMO term life insurance contracts of a target group from aged 20 to 30 & developed analysis to drive insight of each company's business strategy
- Developed actuarial valuation modeling tool for term life products by analyzing BE assumption, number of decrement & lapse rate; calculated premium & claim cash flow which increased efficiency of analysis and automated scenarios
- Reviewed PingAn CI product's comprehensive ES report: analyzed product's target group and applied actual claim data to calculate A/E, adjusted A/E by Credibility factor; provided improvement of BE assumption to senior management

Pin An Insurance, Guangzhou, China — July 2019-September 2019
Summer Intern

- Researched multiple market products & compared similarities/differences on existing products to new product
- Showed critical thinking capabilities by indicating purchasing motivations from clients for the new product.
- Delivered presentation & comprehensive reports of new products profitability analysis to the teams based on calculations of inforce statistics, cash flow/claim ratio analysis & information gathered from current market trends
- Illustrated outstanding teamwork ability through supporting team to complete financial reporting tasks & presentations for a travel insurance product

Jingyao (Joyce) Qiao

Joyce has a strong background in data science. She is intellectually motivated with a proven history of generating results through exceptional communication, leadership, time management, fast learning and quantitative skills. She is passionate about contributing to the growth of others, leveraging her quantitative expertise, and most essentially achieving goals.

EDUCATION

Master of Financial Insurance
University of Toronto
2020 - 2021

BSc (Honours) Applied Mathematics
York University
2020

Continuing Studies Scholar & Dean's Honour List 2017-2020

Linear Regression Model Development: Team Leader
Combinatorial Optimization Problem: Team Leader

SKILLS

Programming: Python; MATLAB; SAS; R & Maple
Language: English; Mandarin

PROFESSIONAL CERTIFICATES/AWARDS

CFA Level 1: 2020 Candidate
Bloomberg Market Concepts (BMC) Certification, 2019
Financial Engineering& RM Certification Part 1, 2019 (Columbia University)

INTERESTS/ACTIVITIES

Badminton; Cooking; Succulent plants

EXPERIENCE

Springer Garden Inc. — July 2019-August 2020
Business Development Manager

- Developed exceptional communication & customer facing skills whilst upholding high degree of courtesy & professionalism
- Responsible for seeking out prospective opportunities through networking
- Developed negotiation skills through dealing with merchants to facilitate purchase orders

Lyndex Technology — July 2019-October 2019
Research Analyst

- Conducted research using primary & secondary data to assist with the firm's strategic expansion strategy
- Collaborated with team members & shared opinions regarding recommended strategies for clients situated overseas in China
- Enhanced knowledge & technological proficiency in using MS Suite to complete daily objectives

GPA Plus Education Inc. — May 2018-April 2019
Mathematics tutor

- Prepared lecture notes & create mock tests for students
- Utilized expertise to instruct university level subjects such as Calculus
- Improved communication skills answering questions in clear & concise manner

Kevin Wang

Kevin has a strong background in Economics and Statistics. He is an enthusiastic and self-motivated learner who is equipped with strong financial modelling, risk management, statistical models and financial analysis skillsets. He possesses extremely high working efficiency, superior time management, excellent leadership skills, and high-quality working performance.

EDUCATION

Master of Financial Insurance
University of Toronto
2020 - 2021

BA (Honours) with High Distinction
Economics Specialist; Statistics Major
University of Toronto
2020

Dean's List: 2017, 2020

SKILLS

Programming: MS Excel; R; Python; STATA; SAS
Language: English (fluent); Mandarin (Native)

PROFESSIONAL CERTIFICATES/AWARDS

SAS Certified Specialist; Advanced Programming SAS 9.4
Canadian Securities Course: Passed 2019

INTERESTS/ACTIVITIES

Chinese Undergraduate Association Pubic Relations 2019
Photography; Piano; Saxophone; Basketball; Swimming; Weight Loss Training

EXPERIENCE

Bank of China, China — June 2019-August 2019
Assistant Finance Manager Intern

- Organized clients' & companies' background information and financial status through Excel & SAS
- Utilized dataset to differentiate customers' preferences & design specific product segmentation by market types
- Provided technological support to clients daily to improve customer satisfaction & ensure smooth operations
- Communicated with 100 clients on their financial standings and offered valuable investment advice

TOA (China) Ltd., China — May 2016-August 2016
IT Assistant Intern

- Applied Python to monitor & run tests on the connections among public address system, microphone, and the speakers
- Provided assistance on technology mainly to the Sales Department which contributed to raising performance standards
- Participated in site-specific investigations, field trips, and daily group meetings with clients

University of Toronto
Project: Bank of Canada Competition "Governor's Challenge" using STATA

- Offered statistical inference and analytical framework to support main views & policy recommendations

Qiwen (Wendy) Wang

Qiwen has a solid academic background in finance, statistics and programming with multiple internships in capital markets and the technology field. She is a self-motivated, goal-oriented, and cooperative person who can perform well in both personal and team work.

EDUCATION

Master of Financial Insurance
University of Toronto
2020 - 2021

BMath (Honours)
Financial Anaysis & Risk Management
(Professional Risk Management Specialization)
University of Waterloo
2019

SKILLS

Programming: Python; R Studio; MATLAB; SQL

PROFESSIONAL CERTIFICATES/AWARDS

CFA Level 1: 2019
FRM Level I : 2018
FRM Level II: 2019

INTERESTS/ACTIVITIES

Travelling; Fitness; Playing "Go"
University of Waterloo: Volunteer Residence Tour Guide

EXPERIENCE

Hangzhou Jianglong Investment Management Co., China — May 2020-June 2020
Futures Trader

- Managed futures in rapeseed, palm, & soya-bean oil market
- Analyzed the market using the fundamental analysis based on government policies, international relationships, or plant growth cycle, etc.
- Evaluated some basic hedge & arbitrage methods

Fintelics, Toronto — February 2020-April 2020
Business Analyst

- Converted business requirements into detailed use cases & effectively communicated with technical teams for an automatic payroll system
- Programmed with python and created a pipeline to analyze data related to company stock & dividend prices
- Conducted deep exploratory data analysis to identify important features and installed AWS Lambda and S3 bucket to save code and image as the result of analyzing
- Collaborated with business team to complete QA tests & ensured timely and accurate report regarding feature improvements for QA tests.
- Provided consult for our company & presented cases to manager

Rural Commercial Banks, China — July 2017-August 2017
Trading Assistant

- Analyzed existing AML (Anti-Money Laundering) policies and procedures
- Created AML alerts for unusual transactions

Yuling (Tim) Wang

Yuling is a detail-oriented team player with great leadership and interpersonal skills demonstrated through work experience in the insurance and risk management industry.

EDUCATION

Master of Financial Insurance
University of Toronto
2020 - 2021

BSc Applied Statistics & Fintech
Renmin University of China
2020

Outstanding Graduatet Award: 2020

SKILLS

Programming: Python; R; SQL; VBA; C

PROFESSIONAL CERTIFICATES/AWARDS

Society of Actuaries
P (Probability);
FM (Financial Mathematics);
STAM (Short Term Actuarial Mathematics;
LTAM (Long Term Actuarial Mathematics);
IFM (Investment & Financial Markets)

Society of Actuaries Student Case Study Challenge Semi-Finalist(First Mainland China Award Winner): 2019

AIA Actuarial Excellence Scholarship: 2019

INTERESTS/ACTIVITIES

Tennis; Director of External Affairs and Event Planning at Actuarial Club, Renmin University of China

EXPERIENCE

Renmin University of China — April 2019-April 2020
Research Assistant

- Researched weather index insurance & long-term care insurance
- Developed a quantitative risk model to measure crop failure risks using R and Principal Component Regression
- Interviewed staff and clients of nursing homes & analyzed the need for long-term care insurance in China

Swiss Reinsurance, Beijing, China — July 2019-January 2020
Actuarial Intern, Business Development

- Independently conducted monthly industry research
- Conducted half-year financial performance analysis for top insurers in China & detected profitable opportunities
- Assisted with the consultation reports for clients
- Independently prepared the embedded value report for New China Life Insurance Company & presented report

Price Waterhouse Coopers, Beijing, China — December 2018-February 2019
Risk Audit Intern

- Assisted with the annual audit for China State Construction and Engineering corporation
- Independently developed a risk assessment model using R to estimate the financial risk of different construction projects
- Reviewed the accounting statements of the client and prepared audit reports

Aegon THTF Life Insurance Co., Beijing, China — December 2018-February 2019
Underwriting Intern

- Assisted with critical illness insurance underwriting & processed clients' information data using VBA to assess risk

Hanzhi (Jessie) Wu

Jessie possesses excellent oral and written communication skills and able to tailor communication level and style to the audience to ensure effective transfer of information. Highly motivated, she remains current in the industry by continuously enhancing professional knowledge and has the ability to work collaboratively with others to meet client needs and achieve team goals.

EDUCATION

Master of Financial Insurance
University of Toronto
2020 - 2021

BSc (Honours) with High Distinction
Actuarial Science, Economics & Statistics
University of Toronto
2020

Eileen Dolman Award
(scholarship for outstanding academic achievement): 2017
Dean's List: 2017- 2020

SKILLS

Programming: Python; R; Matlab; SQL
MS Office including Excel
Language: English & Mandarin; Spanish & Korean beginner

PROFESSIONAL CERTIFICATES/AWARDS

Society of Actuaries
P (Probability);
FM (Financial Mathematics);
IFM (Investment & Financial Markets)

INTERESTS/ACTIVITIES

Sports; Gold Medal: Long Jump

EXPERIENCE

United Automotive Electronic Systems Co., Ltd., China — May 2017-July 2017
Intern, Finance & Cost Accounting Department

- Calculated & analyzed statistical data using Excel to yield final cost
- Gained understanding of the organization structure by having meetings with tech team staff, developed & established a cost-efficient system of data processing
- Effectively organized & prioritized work load to ensure all tasks were met in a satisfactory and timely manner
- Analyzed options available for cost accounting & built a model in Microsoft Excel; implementation led to successful calculation of cost
- Developed strategy for aggregating & summarizing data, resulting in increased work efficiency

University of Toronto — October 2020-Present
Teaching Assisatnt

- Deliver a range of teaching and assessment activities including weekly office hours for a group of 40 students, advised on skills methods and techniques to assist the transfer of knowledge
- Participate in the assessment process and provide effective timely and appropriate feedback to students

Project: Reserving Report for Alberta Private Passenger Automobile

- Applied actuarial reserving techniques to analyze P&C claim data; Gained Solid understanding how claim reserves are set

Project: Predicting the Volatility of Stocks

- Created diurnal patterns of volatility of stocks

Project: Home Credit Default Risk

- Conducted back-testing and impact analysis of the model and compared the current model with the new model

Hongda (William) Wu

William has a strong background in Actuarial Science and Statistics. His career passion lies in actuarial science, finance, and quantitative risk management. With superior critical thinking skills, he is intellectually curious, and he always takes initiative for continuous self-improvement. He is able to work independently with minimal supervision and collaboratively in a team environment.

EDUCATION

Master of Financial Insurance
University of Toronto
2020 - 2021

BMath (Honours) with Distinction
Actuarial Science & Statistics
University of Waterloo
2020

Project: Imputation for Missing Values
2020

SKILLS

Programming: Python; R; VBA; SAS; Java; Minitab
MS Office

PROFESSIONAL CERTIFICATES/AWARDS

Society of Actuaries
P (Probability);
FM (Financial Mathematics);
IFM (Investment & Financial Markets);
LTAM (Long Term Actuarial Mathematics);
STAM (Short Term Actuarial Mathematics;
VEE credits: Economics;
Mathematical Statistics; Corporate Finance

INTERESTS/ACTIVITIES

Participate in Rubik's Cube competitions with a personal best of 8.61 seconds
Basketball; Hiking

EXPERIENCE

University of Toronto — September 2020-Present
Teaching Assistant

- Deliver weekly tutorials to a group of 36 students; provide guidance to students on practice questions
- Assist the instructor with material preparation, grading of term tests and final exams
- Analyze students' test performance and provide feedback on potential modifications to future tests

Alltrust Insurance Company, Shanghai, China — May 2019-August 2019
Actuarial Intern

- Participated in loss experience reviews by performing exploratory data analysis on premium & product mix shift over time, aggregating policy sales, premiums & loss ratios for various personal & commercial insurance lines in Excel, & creating summary exhibits for senior actuaries
- Assisted with the product development analysis of drone insurance by researching regulations on drone operations and registration & licensing requirements for drone pilots
- Gained exposure to the Minimum Capital Test solvency framework & common loss reserving techniques, such as Expected Loss Ratio Method & Chain Ladder Method

Intramural Basketball Team, Waterloo — September 2015-December 2019
Team Captain

- Effectively communicated with basketball coordinator and teammates for scheduling games
- Promptly resolved conflicts during basketball games to ensure the game runs smoothly

Yaru Yang

Yaru has solid multitasking and time management skills, with significant experience in website data scripting and excellent presenting and communication skills. Having strong problem-solving skills with a robust research background and trouble-shooting experience, he has worked in culturally diverse environments and clients from different academic and working profiles.

EDUCATION

Master of Financial Insurance
University of Toronto
2020 - 2021

BSc (Honours)
Actuarial Science, Statistics & Computer Science
University of Toronto
2020

SKILLS

Programming: Python; Java; VBA; R; C; SQL; HTML

PROFESSIONAL CERTIFICATES/AWARDS

The Lawrence and Sharen Ho International Scholarship
2018

INTERESTS/ACTIVITIES

Travel; Cooking & Food; Hiking

EXPERIENCE

University of Toronto — September 2016-Present
Teaching Assistant

- Create learning materials, organizing tutorial schedules, & hold tutorials to enhance students' academic knowledge as well as communication and writing skills
- Help student clarify questions and provide answers within a 6-hour time-around
- Introduce technology solutions to triage students' questions to maximize time in tutorials for prioritized tasks

Society of Actuaries Case Competition: Semi-Final — March 2019

- Designed a new autonomous vehicle insurance policy to add to the competency of the company in his newly developed industry by forecasting launch date, pure premium & its change in ten years
- Managed project in terms of project planning, schedule & delivery
- Analyzed traditional historic data to predict forthcoming product to develop the ability to create models, upgrade application of time series, model validation

Canada Revenue Agency — January 2017-August 2017
Data Analyst/Cross-functional Analyst

- Used programming language (VBA) to script data from hundreds of websites to get millions of different types of unstructured records which are parsed into excel format
- Analyze data, make assumptions & prove the hypothesis varying by industry
- Developed problem-solving skills by finding an alternate way to achieve goals

Chenming (Ming) Ye

Chenming has exceptional organizational and planning skills demonstrated through large event planning and her professional background in mathematics has developed strong analytical skills along with excellent interpersonal skills. Chenming's attention to detail has been proven as a notetaker with recognition for excellence.

EDUCATION

Master of Financial Insurance
University of Toronto
2020 - 2021

BSc (Honours)
Financial Modeling Specialization
Western University
2020
Gold Medal – Highest standing in the Honours specialization program

Dean's Honour List

SKILLS

Programming: Python; R; MATLAB; VBA; C++

PROFESSIONAL CERTIFICATES/AWARDS

Society of Actuaries
P (Probability);
FM (Financial Mathematics);
IFM (Investment & Financial Markets)

Applied Data Science with Application: Coursera

INTERESTS/ACTIVITIES

Graphical Designer

EXPERIENCE

Project: Analysis of Housing Price Index and Its Influence Factors — October 2019-November 2019

- Reprocessed data from US government database according to population region, processed and merged data frames, and summarized data by utilizing resharp2, dplyr, and tidyverse in R language
- Visualized the influence of population to housing price index by drawing GIF and heatmap, and
- completed linear regression with ggplot, ggaminate & plotly

Project: Self-Service Shift Schedule — May 2019-August 2019

- Constructed the self-service shift schedule with the full-scale algorithm to consider all the situations in Python
- Created the visible schedule board to keep track of the availability of working time
- Displayed the summary of user's working information once the employee ID was inputted
- Wrote readable code in a decent way by reasonable comments and separating code into multiple functions

Hangji County, Hunan Province, China — March 2018-June 2018
Teaching Assistant Volunteer

- Organized basic math courses of from Grade 1 to Grade 6 for 50+ students, collaborated with other volunteering teachers to track & encourage students' participation
- Raised approx. 5000 educational funds by selling 400 sets of customized postcards which shows students' daily life
- Utilized the additional funds to pay for 200 books & sponsored the best 10 students a textbook grant

Ruolin Yuan

Ruolin is a motivated analyst with experience in business reporting, creating dashboard, business process automation and experience completed in quantitative finance and investment. She is incredibly attentive to detail achieving accurate results and an adaptive team member, producing excellent work and collaborating well to achieve group performance.

EDUCATION

Master of Financial Insurance
University of Toronto
2020 - 2021

MSc Computational Finance
University College London, U.K.
2017
Relevant Courses: Portfolio Theory; Numerical Analysis; Financial Engineering; Stochastic Process; Networks; Systemic Risk

BSc Statistics
University College London, U.K.

SKILLS

Programming: Python; SAS; R; Tableau; MATLAB; VBA; Excel

PROFESSIONAL CERTIFICATES/AWARDS

Society of Actuaries
P (Probability);
FM (Financial Mathematics)

SAS 9.4 Base & Advanced Certificates
CFA Level I Candidate

INTERESTS/ACTIVITIES

Badminton; Swimming; Calligraphy; Writing movie reviews

EXPERIENCE

Yanc Data Consulting, Toronto — August 2019-November 2019
Data Analyst

- Reduced cost by over 30% by developing methods identifying bad performance products using Python
- Manipulated retail customers data & order lists from database by writing multiple SQL queries
- Automated & optimized reporting & data reconciliation processes increasing productivity by 35%

Tus, Plus, Toronto — November 2017-February 2019
Assistant

- Performed data cleansing & conducted data analysis
- Collaborated with cross-functional team to produce report
- Built statistical models (eg, mixed effect models) to estimate the minimum satisfaction score using R and Python

DataSpartan, London, U.K. — June 2017-September 2017
Quantitative Analyst Intern

- Contributed a trading strategy with expected Sharpe ratio, which was 4% higher than US benchmark
- Performed data cleaning after extracting from both Yahoo Finance and Thomson Reuters Eikon using Python
- Introduced multiple supervised machine learning techniques to train models and forecast stock price

China Investment Corporation, Beijing — June 2016-August 2016
Analyst Intern

- Researched targeted industry & completed industry and companies research report independently
- Monitored stock price of targeted manufacturers

Yuxuan (Gina) Zhang

Gina has a strong background with proven working experience in the insurance industry. She is goal oriented, a fast learner with passion and curiosity for quantitative analytics and actuarial modeling. She is actively pursuing the ASA designation and is an excellent communicator who thrives working in a high performing environment.

EDUCATION

Master of Financial Insurance
University of Toronto
2020 - 2021

BSc (Honours) High Distinction
Actuarial Science Specialist
Statistics Major
University of Toronto
2020

U of T New College In-Course Scholarship
P.L.J. Ryall Scholarship: Awarded to Specialist graduate with highest CGPA

SKILLS

R; Python; VBA

PROFESSIONAL CERTIFICATES/AWARDS

Society of Actuaries
P (Probability); FM (Financial Mathematics); STAM (Short Term Actuarial Mathematics; SRM (Statistics for Risk Modelling; IFM (Investment & Financial Markets) & all VEE components
GARP Financial Risk Manager (FRM): Level 1 (2019)
SOA Case Competition: Global Semi-Finalist
RBC Tomorrow Summer Student Challenge: Finalist

INTERESTS/ACTIVITIES

U of T Mentorship Program:Mentor
U of T New College
Student Council Representative
Orientation Leader

EXPERIENCE

University of Toronto — January 2020-Present
Teaching Assistant

RBC Insurance, Toronto — May 2020-August 2020
Actuarial Analyst Intern, Group Pricing

- Automated the process of analyzing the impact of Covid-19 on monthly claims, guiding the company to offer more competitive pricing of short-term disability insurance products
- Suggested semi-annual adjustment on manual rates that have misaligned with the insured companies' profit level
- Updated pricing & analysis reports such as long-term disability movement, cost structure analysis & compensation reports, providing the company with the latest market trends
- Built a commission comparison calculator to improve the efficiency of the underwriting team in comparing scales between multiple carriers.

Society of Actuaries — January 2019-March 2019
Research Student

- Leveraged actuarial methodology to design an insurance policy for autonomous vehicles
- Analyzed potential data, suggested actuarial assumptions & forecasted the future trend in pure premium.
- Researched topics related to autonomous vehicles & presented report

Bank of China, Beijing, China — July 2017-August 2017
Risk Assessment Intern

- Assisted in the coordination & execution of Risk Assessment & Due Diligence on a portfolio of clients
- Monitor risk exposures & prepare monthly portfolio reviews

Sichao (Michael) Zhu

Michael is a highly motivated proactive learner with excellent interpersonal skills demonstrated through work experience. He has a strong ability to thrive in a dynamic environment and highly effective at identifying problems and generating solutions. Experienced in quantitative modelling and statistical learning, Michael also has a keen interest in financial markets and risk management.

EDUCATION

Master of Financial Insurance
University of Toronto
2020 - 2021

BMath with Distinction
Actuarial Science & Statistics (Co-op)
University of Waterloo
2020

SKILLS

Programming: MS Excel; VBA; SAS; R; SQL; Python; C; Racket; MATLAB

PROFESSIONAL CERTIFICATES/AWARDS

CFA Level I Candidate

INTERESTS/ACTIVITIES

UWaterloo Actuarial Science Club: Mentor (2017-2020)
Certified Bartender, Toronto Institute of Bartending
Quantify Insurance & Risk Consulting Case Competition: Top 5 submission (2018)
Ecoteer, Perhentian Island, Malaysia: Volunteer

EXPERIENCE

PwC Canada, Toronto — January 2019-December 2019
Consulting Intern

- Demonstrated financial analysis skills by supporting end of year/quarter valuations & capital adequacy testing
- Conducted reserve analysis to support the firm's audit function
- Showed critical thinking skills by performing peer reviews for other companies' end of year appointed actuary reports
- Migration to new software for call clients
- Displayed ability to handle & process confidential information complying with the code of professional ethics
- Highlighted exceptional writing and presentation skills by independently preparing a detailed report of the year-end process

RSA Canada, Toronto — September 2017-April 2018
Analytics Intern

- Provided analytical support to pricing teams via generating analytic reports on geospatial data using QGIS, SAS and R
- Exhibited excellent GIS skills by streamlining geospatial data mapping methods & integrating the existing flood insurance rating model
- Conducted quantitative analysis & modelling on fraud claim data
- Performed text mining on auto policies in supporting cross-selling of property products

Foresters Financial, Toronto — December 2016-April 2017
Actuarial Intern

- Showcased skills in financial analysis by using Access & Axis to support the US Year End Statutory Valuation for various insurance products
- Performed Axis quarter end runs to document impact & sensitivity analysis results

Meet Our Alumni

"The MFI taught me to be confident and strong in networking and communication, deep and diversified knowledge, and to keep pace with the new development frontier of the financial market and relevant technologies."

Meng (Moriah) Yu, MFI 2018
MFI Academic Award Recipient 2018

"My time at U of T was nothing but an unforgettable experience. I am highly thankful for the depth of knowledge the MFI program has armed me with. It is a privilege to be part of such a great program."

Adrien Brice Nouya, MFI 2017

"The MFI is a great professional program combining quantitative finance with actuarial science, which gave me more career choices as insurance and finance industries are blending together. Also, the internship opportunity opens the door of my future career."

Yuting Chen, MFI 2019

"The MFI Program taught me to challenge myself... I really enjoyed my experience with the MFI Program and appreciate this unique opportunity to explore and improve myself from distinctive perspectives."

Naibing (Irina) Zhang, MFI 2018
MFI Ambassador Award Recipient 2018

"I am currently working in Global Banking and Markets Audit at Scotiabank. I went to MFI in 2016 after my undergraduate in financial engineering. Through the courses and internship, I learned financial and risk management knowledge and improved my programming skills, which are widely used in my job. In addition, MFI also offers great networking opportunities for me to meet with professionals in different financial areas."

Siying Feng, MFI 2017

"Before joining MFI, I graduated from UofT in Statistics and Quantitative Finance. The MFI program allowed me to develop deeper thinking and explore ideas regarding a field that really interests me – finance. In addition to strong academic support, the Program also organized a variety of extracurricular activities and meetings; hearing from guest speakers and lecturers ensured plenty of opportunities to gain industrial insights and engage with my knowledge from multiple angles. I am currently working in Total Portfolio Management at Canada's largest pension fund, CPPIB. And now, I can say with confidence, that MFI better prepared me for my career."

Yiwen (Sophia) Zhang, MFI 2017
MFI Ambassador Award Recipient 2017

"I am applying what I have learnt in the MFI Program, both the quantitative skills as well as soft skills, into practice. Now working at Great-West Life, I am really grateful for the MFI experience!"

Jiating (Lisa) Sun, MFI 2018
MFI Business Acumen Award, 2018

"I had completed my bachelor degree in Mathematics and Statistics at UofT, and having come out with lots of knowledge, but very little work experience, I realized that I needed a stepping stone before I am able to join the industry. Throughout the program I gained invaluable skills, through more advanced coursework, seminars and lectures given by industry experts and through working through real-life problems. Now I work in TD's Model Validation team, feeling that MFI did indeed give me the help that I needed so much, in order to have a more productive and successful career."

Alexey Pakhuchiy, MFI 2017

Our 2020 MFI Award Recipients

MFI Academic Award 2020

Awarded to the MFI student with the best overall performance in coursework throughout the year

IAN WENG (SOPHIA) CHAN graduated from the UofT before joining the MFI Program. She completed a summer research project with Professors Andrei Badescu and Sheldon Lin in the Department of Statistical Sciences and is continuing her academic career pursuing a PhD. Congratulations Sophia!

"The MFI program combines the insights of the financial markets with the traditional insurance field. It offers courses not only in these two fields, but also in data science, machine learning and time series analysis. From my point of view, the MFI program has a great balance between theories and practices – I have the opportunities to implement the theories and methodologies learnt through various group projects and case studies. This helps to deepen my understanding and promotes my critical thinking skills.

I am grateful that U of T offers the MFI program which on one hand allows me to continue my investigation in actuarial science and its related fields, while on the other hand develops my professionalism through networking events, seminars conducted by industrial professionals and industrial internship in the summer.

I am now pursuing a PhD in actuarial science at U of T, so I have chosen to do a research project in lieu of the summer internship. This is probably beyond the expectation of most people since the MFI prepares students primarily for professional world, however, my experience has proven the possibility of continuing study despite graduating from a professional program. Regardless of your future career plans, I would highly recommend the MFI program to all candidates interested in finance, insurance, and data science."

SOPHIA CHAN, MFI 2020
MFI Academic Achievement Award Recipient 2020

"Sophia impressed us highly from an earlier stage during her undergraduate years when she was the top student in her cohort in the Actuarial Science specialist program at University of Toronto. Upon graduation, she was admitted to the highly selective Master of Financial Insurance program. As a remarkable student who is highly intelligent and has great analytical skills, she was offered a summer internship by Northbridge Financial Corporation to work on insurance data analytics, which was unfortunately cancelled due to the Covid pandemic. She instead worked on a research project on pricing and reserving problems in general insurance under our supervision. The project required to perform a very thorough analysis of some most advanced modeling tools used by actuarial practitioners and academics. We could not be happier with her performance. Sophia is now a student in our highly competitive PhD program to further her studies in insurance predictive modelling and data analytics. We are very pleased to have an opportunity to supervise her."

Professor Andrei Badescu
Supervisor

Professor Sheldon Lin
Supervisor

MFI Business Acumen Award 2020

Awarded to the MFI student with the best overall performance in the internship, and presentations and discussion throughout the year

TIANRUN PANG graduated from the University of Waterloo and is currently working at TD where he secured a place on their highly competitive Rotational Program very soon after joining us at the MFI. He has consistently been an advocate for the Program and his classmates alike during industry visits and networking events, and also demonstrated excellent presentation skills. Congratulations on your well-deserved award Tianrun!

"The MFI program had constantly challenged us in its unique way, both intellectually and socially, with a plethora of projects, presentations, seminars, networking events. It is with challenge that comes opportunities – opportunities that helped me grow at a pace far beyond what I had fathomed. So many of my firsts happened here – first job interview, first networking event, first four-hour long final. I am ever so grateful for everything the MFI program has gifted me and the admin team has certainly done an excellent job!".

TIANRUN PANG, MFI 2020
MFI Business Acumen Award Recipient 2020

"Tianrun joined the bank in June and has made an immediate contribution towards a number of projects within his current team. He is a motivated self-starter and is always eager to pitch in and add value. His strong work ethic is further enhanced by his curious nature, eagerness to learn, and willingness to accept new challenges. Above all, Tianrun brings a great attitude to the workplace and has been an absolute pleasure to work with! "

RAFAEL SCHULMAN
Senior Analyst Model Development, TD

MFI Ambassador Award 2020

Awarded to the MFI student who best embodies the values and qualities of the MFI Program, and whose fellow students see as the best representative of the MFI

LUOLIN (COLIN) CHEN graduated from the UofT in 2017. He joined the MFI Program in 2019 and soon built a great rapport with all his classmates and therefore was a popular choice as the Ambassador for his cohort. Colin has set up an MFI Alumni group on LinkedIn which shows great initiative to connect the class going forward. Congratulations!

"It is an honour for me to be part of the MFI program. The teaching team supported and guided me with their valuable insights and industry experience. They constructed the perfect studying environment to suit my background and interest in actuarial science, data science, and financial mathematics.
MFI also provided me opportunities to connect with industry professionals, and to further improve myself beyond academics.

With the wonderful experience I had in Manulife Investment Management, I was able to make connections between my knowledge and working practices, and to make an impact with my contribution. The platform MFI gave to me to meet my talented classmates is precious. With countless support, thoughtful discussion, and happy distraction, they completed my experience in MFI. With the strong bond among us, class of 2020 is the most treasured network for me in my future."

LUOLIN (COLIN) CHEN, MFI 2020
MFI Ambassador Award Recipient 2020

"It was a privilege getting to know and work with Colin over the three summer months he was with Manulife Investment Management. He is not only intelligent and diligent with strong technical skills, but is also extremely thoughtful and kind with his words. Colin worked closely with the compliance team, and was able to identify and properly address a significant number of issues that we are very grateful for. We wish Colin all the best in all his endeavors and are certain he has a bright future ahead of him."

Kathy Wang
Assistant Vice President, Investment Compliance
Manulife Investment Management

MFI Students Fall 2020!

Sadly due to Covid19 students have not been able to gather together in the classroom so far this year however those MFI students located in the Toronto area have found ways to safely bond over badminton, tree-topping & hiking!

Program Contact Information

If you are interested in collaborating with the Masters of Financial Insurance program, or wish to receive the full resume of any of the students in the profile, the MFI Team would be delighted to hear from you!

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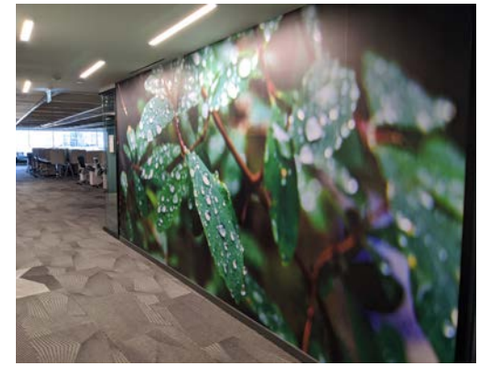

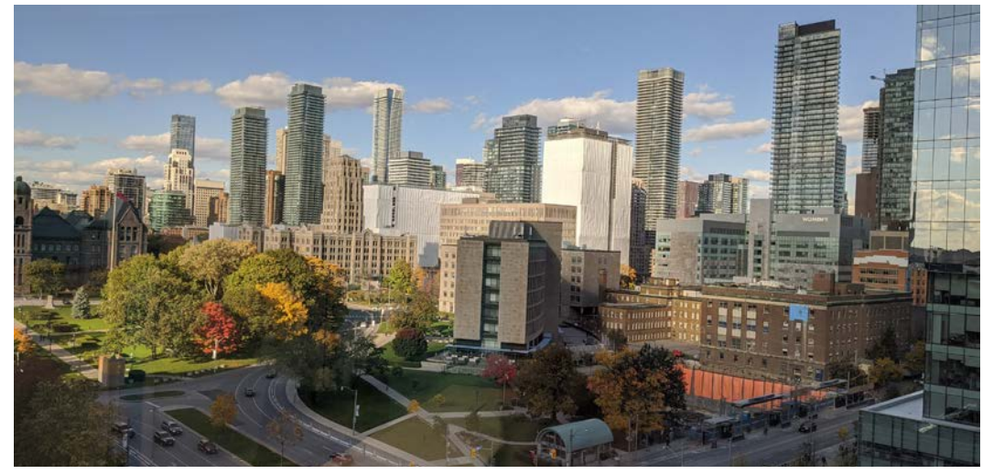

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