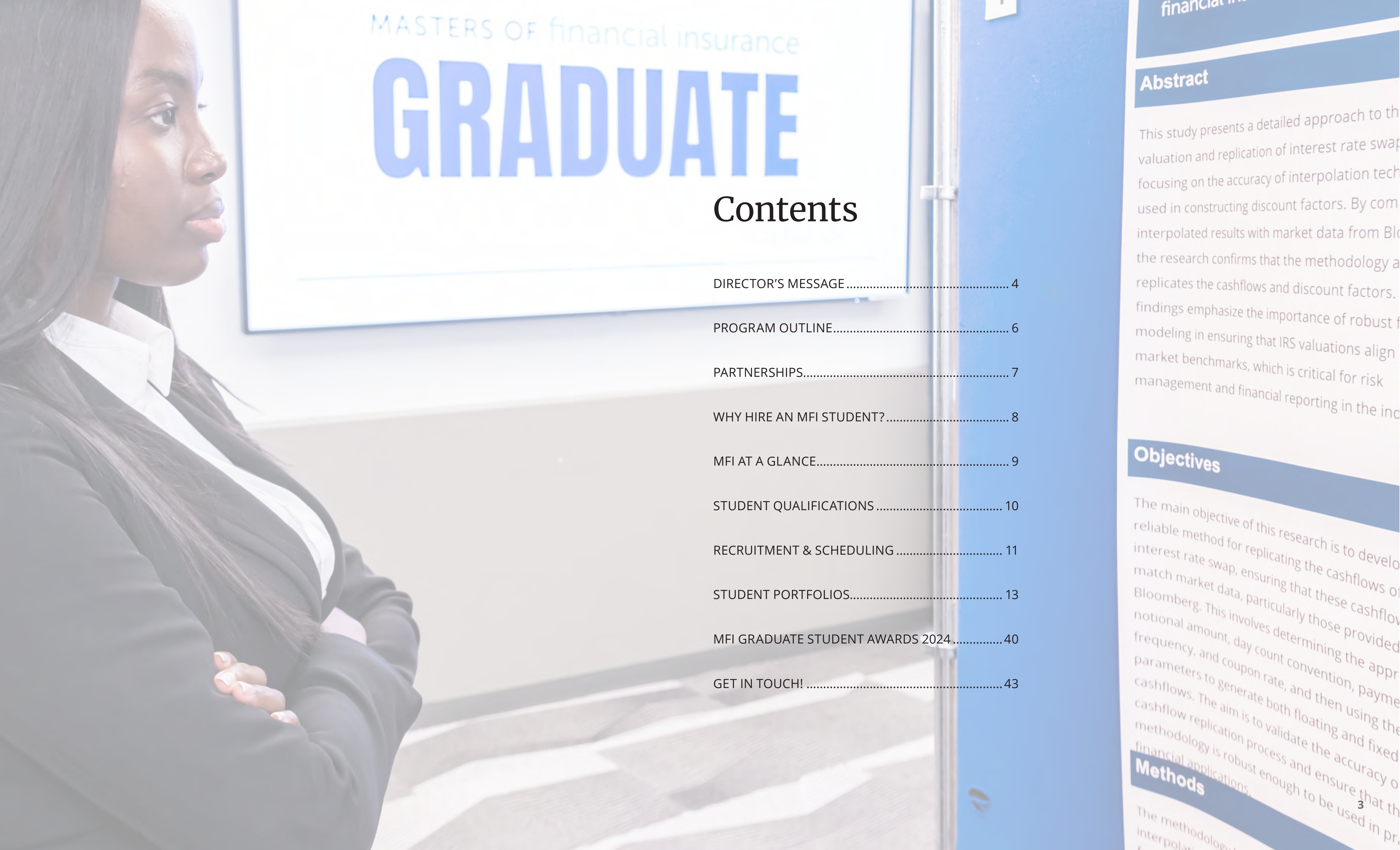
MASTER OF
financial insurance

Statistical Sciences
UNIVERSITY OF TORONTO

# Future Ready: Portfolio of Talent

MFI CANDIDATES 2025


MASTERS OF financial insurance
GRADUATE
Abstract
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# DIRECTOR'S MESSAGE

Since its inception in 2016, the Master of Financial Insurance (MFI) Program has cultivated strong relationships with numerous key partners across the financial and insurance sectors, offering tremendous hiring opportunities for our students.

The continued support and enthusiasm from these industry leaders emphasize the mutual benefits of this partnership. Many of our sponsors, including prominent firms in the field, have expressed the significant value that our students bring to their operations, praising the distinctive blend of technical expertise and practical skills that the MFI program instills in its graduates.

At the heart of the MFI program is our commitment to providing students with a comprehensive and dynamic education, grounded in cutting-edge topics spanning mathematical finance, insurance modeling, and data science. This technical foundation is complemented by rigorous professional development, ensuring our graduates are equipped with the soft skills necessary to thrive in a fast-evolving industry. By engaging students with real-world challenges and stimulating connections with emerging trends and innovations, we prepare them to meet the complex demands of today's market. Our graduates' strong placement record speaks to the effectiveness of this approach, with many students securing full-time roles with our industry partners shortly after graduation.

We sincerely thank our industry collaborators, whose continued involvement is key to the MFI Program's success. Your support is essential to our mission, and we look forward to building on this strong partnership in the future.

Andrei Badescu
Professor & Director, Master of Financial Insurance

The Master of Financial Insurance (MFI) program at the University of Toronto is designed to provide students with a comprehensive understanding of financial risk management and insurance. This rigorous program combines theoretical knowledge with practical applications, preparing graduates for successful careers in the dynamic fields of finance and insurance.

# PROGRAM OUTLINE

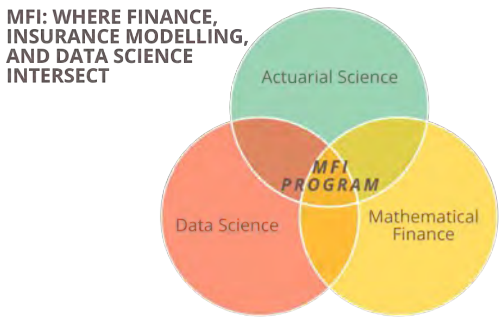
*MFI: Where Finance, Insurance and Data Science Intersect*

The Master of Financial Insurance (MFI) is a unique 12-month course-based professional master's degree program (not a thesis-based masters' degree) designed to produce students ready for employment and future global leaders in the financial insurance industry.

"Finsurance" is a burgeoning field in which sophisticated finance-insurance hybrid products are being developed to meet the needs of an aging global population. Students will acquire expertise in valuing, hedging, and managing the combined financial and insurance risks embedded in such complex products.

The MFI, offered on a full-time basis only, has been developed in response to demand from prospective students and industry members and will fill an important gap in academic training, providing students with the opportunity to bridge their traditional disciplinary backgrounds and develop the connections between these areas.

The program consists of a series of highly cross-disciplinary courses focused on real-world problems, drawing on insurance, finance, statistical and mathematical tools, and methods, and delivered in many instances by experienced industry professionals The MFI program also provides a 16-week industry internship to apply theoretical knowledge to the real-world environment.




The MFI Program is committed to:

- Working closely with industry and developing a graduate program that meets the requirements of current employers
- Providing a broad background of in-depth classroom and laboratory based courses relevant to finance and insurance
- Developing strong professional and interpersonal skills in our graduate students
- Interacting with a wide range of companies through seminars, industry information sessions, and internships

# PARTNERSHIPS

The MFI administrators have been deeply impressed by the enthusiasm and unwavering support offered by industry partners right from the program's inception.

This partnership has played a pivotal role in the program's success, with seasoned alumni now emerging as influential leaders in the industry. This collaboration is essential for the continued growth and excellence of the MFI Program.

"The MFI Program provided me with key skills and confidence that helped prepare myself better for entering the industry.

In recent years, I have hired several new graduates from the MFI program, and can say with confidence that the program continues to prepare well-rounded individuals, who have the ability to provide meaningful contributions to their teams and be successful in their careers."

*Alexey Pakhuchiy MFI*
*Senior Manager, Model Validation, TD*

60%

ACROSS ALL COHORTS, THE NUMBER OF MFI STUDENTS WHO SELF-IDENTIFY AS WOMEN

## Other Ways to Participate in the MFI Program

We value the expertise and insights industry professionals bring to enrich the MFI student journey. We invite you to engage and participate not only through work placement partnerships but also through:

- **Mock interviews**
- **Panel discussions**
- **Networking events**
- **Organizational field trips**
- **Informal coffee chats**
- **Event sponsorship**
- **Guest lectures**
- **Informal mentorship**

Tap into a skilled, highly motivated workforce by employing a student from the Master of Financial Insurance (MFI) Program for a work placement. Whether for the summer term only or an extended contract e.g. 8 or 12 months, this offers a chance to connect with emerging professionals.

Students are available for full-time or longer-term contract employment immediately after the summer, bringing fresh perspectives and strategies to your organization.

The students featured in this profile book are prepared to contribute their competencies, knowledge, and expertise to your organization during the summer and beyond! If you are looking for a versatile employee to join your team, look no further!

MFI Graduates have all completed graduate level training in a unique blend of financial mathematics, insurance modelling, and data science and we produce actuaries, data scientists, risk managers, developers, and everything in between!

The structure of the program allows the opportunity to evaluate “pre-professionals” in a cost-effective, risk-free environment, while also influencing the training of future professionals through feedback to the program.

# WHY HIRE AN MFI STUDENT?

- Track Record of Excellence
- Repeat employers and supervisors testify to the value of hiring our students
- Excellent Recruitment Tool
- Students are rigorously pre-screened, interviewed, and hand-picked by the MFI Admissions Team before acceptance into the program
- Students have exceptional technical ability paired with effective communication skills. With an MFI Student or Grad, you will be getting the whole package!
- Employers can benefit from tax incentives! See the section on salary guidelines for more information

# MFI AT A GLANCE

The MFI Program spans a duration of 12 months, organized into three terms. It consists of nine mandatory courses, one elective course, and a 16-week mandatory summer internship.

Irrespective of their academic backgrounds, all students progress through the program together as a unified cohort, following a standardized curriculum that emphasizes integration of skills and computer-laboratory engagement. This approach ensures that graduates emerge from the MFI Program with the same training.

The coursework includes assignments designed to blend knowledge from courses and apply it within real-world contexts. Emphasis is placed on developing strong communication and presentation skills, both in oral and written forms, throughout various course projects.

**Term 1: September to December**

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

**Term 2: January to April**

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)

**Term 3: May to August**

Internship Work Placement

**Program Completion August 31**

# STUDENT QUALIFICATIONS

MFI interns bring a professional mindset, as well as high level quantitative training to hit the ground running. The versatile nature of an MFI Intern will make them a particularly valuable resource to your organization. Our courses, many of which are taught by industry professionals, focus on topics of special relevance for today's finance and insurance challenges.

MFI students' qualifications:

Diverse graduate and undergraduate backgrounds in statistics, mathematics, data science, actuarial science, computer science, engineering, and more

Highly qualified, bright, committed individuals eager to learn and make the most of their internship opportunity

Future team leaders with proven time-management and organizational skills and who have the experience to recognize the importance of working together to benefit your team

Internships are arranged on a full-time, minimum 4-month basis, however, this can be extended into a longer term, or leverage full-time offers as the internship component falls at the end of the program obligation.

The goal of this student profile book is to showcase the current cohort of MFI students. The students represented in this guide are seeking a work term beginning in May for 4-months or longer.



# RECRUITMENT & SCHEDULING

All internships, must be approved by the program through the MFI Internship Administrator. All placements are full time and a minimum of 4 months in duration.

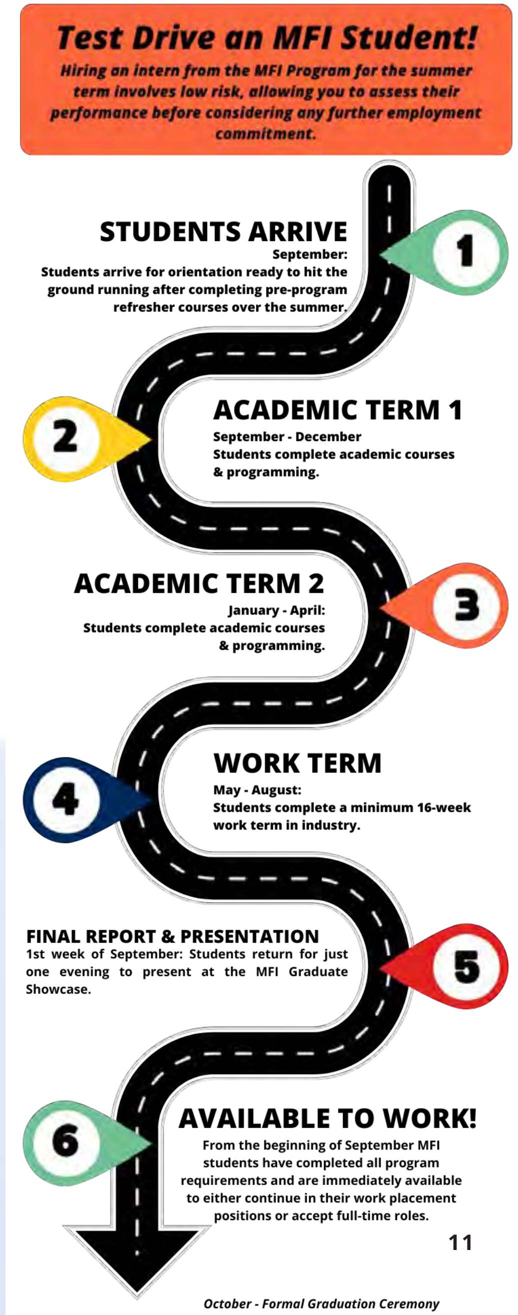
Recruitment for the summer term is dependent on the hiring company and can begin as early as the fall term.

Work placements should start in May through to August however the specific date is to be set by mutual agreement of the student and the hiring company as long as the minimum term of 16 weeks is met by the end of August.

Each 4-month (16-week) placement is considered a mandatory component of the MFI program. Students earn academic credit upon completion of the work term, submission of the final report, and successful defense of their poster presentation at the MFI Graduate Expo in September. To receive credit, specific criteria must be met.

Work term placements must:

- Be full-time for a minimum of four months [16 weeks] duration
- Have a designated, supervisor responsible for evaluating the student (complete an Employer-Student Evaluation form)
- Provide the student with in-depth exposure to the employer's organization
- Be approved as a suitable setting for graduate level



# STUDENT PORTFOLIOS

The profiles featured here are an overview.

To receive the full resumes of this talented cohort please contact the MFI Office for more details.

# Diandra Agbozo MFI

*Diandra is an analytical and detail-focused individual, with a strong emphasis on collaboration and teamwork. She brings a practical mindset and a proactive attitude to achieving the best outcomes. Her academic experience and project work have given her a solid foundation in actuarial principles, insurance practices, and financial analysis.*

## EDUCATION

Master of Financial Insurance
University of Toronto
2025

*MASTERCARD FOUNDATION SCHOLAR*

BSc Honours
Actuarial Science
Kwame Nkrumah University of Science & Technology
2022

## SKILLS

Technical: R; Python; SQL; Power BI; Excel

## AWARDS/CERTIFICATES

MasterCard Foundation Scholarship 2024

## OTHER INTERESTS

Mentorship & Community Engagement
ALX Ghana Fellowship

Alexis Rhema Foundation Community Volunteer

## EXPERIENCE

**GCB Bank Plc., Accra, Ghana** Nov. 2022 - Oct. 2023
*Portfolio Officer, Risk Management*
• Compiled & prepared weekly & monthly reports on the bank's portfolio for distribution to other departments, facilitating accurate assessments & informed recommendations.
• Collaborated with the team to develop migration analysis patterns within the bank's credit portfolio & run-off rates for risk assessment.
• Ensured the integrity & reliability of loan collateral & security information by capturing & maintaining detailed records, strengthening overall risk management processes.
• Assisted in the computation of key performance indicators across the portfolio books contributing to informed decision-making.

**Fidelity Bank**
**Accra, Ghana** Oct. - Dec. 2021
*Customer Service Representative, Intern*
• Identified customer financial needs, goals, & objectives & offered appropriate financial products to suit needs.
• Acquired foundational knowledge in commercial, retail, & investment banking, including regulatory frameworks.
• Developed & maintained relationships with customers & assisted in generating sales opportunities.
• Supported the team by managing documentation, recording meeting minutes, & coordinating departmental activities.

**Insurance Pricing & Investments Strategy** 2024
*Project - University of Toronto*
• Established a premium pricing strategy that accommodated operational expenses while ensuring profitability.
• Recommended the investment distribution of $1,000,000 across stocks & a 5-year (GIC) for portfolio management.

# Eliyah Jasper Agormedah MFI

*Eliyah is an experienced market research analyst in equity and fixed income, with strong analytical, quantitative, and communication skills. He is organized, proactive, and patient in problem-solving and decision-making.*

## EDUCATION

Master of Financial Insurance
University of Toronto
2025

*MASTERCARD FOUNDATION SCHOLAR*

BSc Honours
Actuarial Science
Kwame Nkrumah University of Science and Technology
2022

## SKILLS

Technical: Python; LaTex; MATLAB

## AWARDS/CERTIFICATES

MasterCard Foundation Scholarship 2024

## OTHER INTERESTS

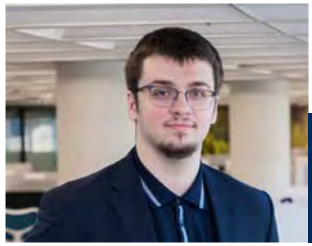
Global Evangelical Church, Ghana
Ushering & Organizing Team
2021 - 2024

## EXPERIENCE

**First Finance Company Ltd., Ghana** Mar. - Jul. 2024
*Research Analyst*
• Conducted in-depth & fact-based market research to identify trends, anomalies & potential risks.
• Summarized data & drew insightful conclusions for investment decisions.
• Built & maintained financial models to forecast investment performances & value.

**Pricing & Investment Strategy** 2024
*Project - University of Toronto*
*Objective: Develop pricing and investment strategies for a new 20-year term life insurance product for 1,000 customers.*
• Strategically balanced risk & return to optimize long-term profitability for the company.
• Ensured profitability in 90% of scenarios with only a 10% chance of loss over a 20-year period.
• Premiums are considered extremely high for both categories (Smoker and Non-smoker) in this scenario therefore readjustment of premium amounts was strongly suggested.

**Old Mutual Pensions Trust, Ghana** Jan. - Oct. 2023
*Graduate Trainee*
• Responsible for documenting & scheduling payments of pension contributions.
• Processed & pre-validated mandate forms in compliance with the National Pension Regulatory Authority.
• Prepared commissions for financial advisors using self-written excel macros.
• Forecast pension benefit disbursement using both benefit calculator & manual calculations.



# Radu Alexe Padina MFI

*Radu is a data and computer scientist specializing in financial market modeling and automation, with expertise in mathematics and statistics, including time series analysis and Markov chain simulations. He efficiently implements models and solutions and also excels in frontend development using React and deploying applications with Docker.*

## EDUCATION

Master of Financial Insurance
University of Toronto
2025

BSc Honours
Statistics & Economics
Minor Mathematics
University of Toronto, Mississauga
2023

## SKILLS

Technical: Python; R; Rust; C/C++; Go; Java; MySQL; Excel; Javascript/Typescript; Next JS React Framework

## AWARDS/CERTIFICATES

Dean's List
2023

## OTHER INTERESTS

Travelling
Avid Sports Enthusiast: Basketball; Soccer; Hockey; Tennis

## EXPERIENCE

**LightningChart**
**Kuopio, Finland** Apr. 2023 - Present
*Software Developer, Statistics*

- Implementing statistics backend library for upcoming data visualization platform solution. This includes a library for computing confidence intervals, best fitting distribution, conducting hypothesis tests, running simulations, & more while focusing on performance to allow handling of any kind of statistical workflow for datasets with millions of records.
- Planned & designed the UI/UX for the entire data visualization platform frontend to allow users to effectively use the statistical backend library with great efficiency.
- Actively researching new technologies & solutions for the company to improve their charting technologies, financial analysis tooling & python data visualization library.

**ST Global Asset Management,**
**Toronto** Aug. 2023 - Aug. 2024
*Software Developer, Fintech*

- Developing & implementing rule-based investment strategies through statistical models of market.
- Created a DDL application for calculating the IRR of our internal projects & portfolios in the S-Trader application assuming both fixed time & manually inputted investment timed intervals using the Newton-Raphson method for converging to a solution.
- Actively developing & deploying the FundIQ software solution for high level fund management tooling which includes computing 100+ financial indicators for funds, benchmarks, fund groups, & model portfolios & integration of an optimization engine for most effective portfolio allocation.

# Sabrina Ameyaw MFI

*Sabrina has two years of combined experience in teaching, digitalization of payment processes and collections, as well as digital validation of insurance claims. She has applied her understanding of statistical models and is passionate about leveraging technology to drive innovation and enhance financial and insurance services.*

## EDUCATION

Master of Financial Insurance
University of Toronto
2025

*MASTERCARD FOUNDATION SCHOLAR*

BSc Actuarial Science
First Class Honours
Kwame Nkrumah University of Science & Technology
2022

## SKILLS

Technical: Python; R; SQL; MATLAB

## AWARDS/CERTIFICATES

Most Influential KNUST Student, KNUST Excellence Awards 2021

ECOWAS Gender Transformative Human Capital Conference, Sierra Leone: KNUST Representative 2022

## OTHER INTERESTS

University Student Association of Ghana Students
Chief of Staff 2022 - 2023

## EXPERIENCE

**First Atlantic Bank, Ghana** Jan. - Jul. 2024
*Fintech Partnership Unit*

- Pitched tailored fintech solutions to financial institutions, developed additional banking products, & secured management approval for partnerships, driving growth & enhancing fintech services.
- Optimized customer onboarding process by coordinating client meetings & internal discussions, reducing integration time by 30%, improving communication between clients & internal teams.
- Maintained comprehensive records of partner onboarding stages, improving reporting accuracy by 25% enhancing regulatory compliance & stakeholder decision-making.

**Kwame Nkrumah University of Science & Technology**
**Ghana** Nov. 2022 - Sep. 2023
*Teaching Assistant*

- Organized tutorials & graded assignments for approximately 700 students in time series analysis, regression analysis, & demographic statistics, providing timely feedback & support, which enhanced student learning & performance.
- Prepared comprehensive lecture notes & presentation slides, improving course materials' clarity & effectiveness, facilitating better student understanding.

**State Insurance Company, Ghana** Aug. - Nov. 2021
*Intern, Claims Processing Officer*

- Managed & processed insurance claims, ensuring prompt settlements & enhancing customer satisfaction through efficient claim handling.
- Assessed fraud claims & reported suspicious activities to the Claims Manager, contributing to the prevention of fraudulent claims & protecting company resources.

# Yizhen (Alex) Chen MFI

*Yizhan has honed strong written and communication skills through co-founding and organizing events for the KEJC Networking Club. He has also developed teamwork abilities through co-op experiences and participation in over 10 projects and competitions.*

## EDUCATION

Master of Financial Insurance
University of Toronto
2025

BSc Honours
Specialist Actuarial Science
University of Toronto
2024

## SKILLS

Technical: Excel; VBA; Python; R; AXIS; Prophet

## AWARDS/CERTIFICATES

*Society of Actuaries*
P (Probability)
FM (Financial Mathematics)
SRM (Statistics for Risk Modelling)
FAM (Fundamentals of Actuarial Mathematics)
*Candidate ASTAM (Advanced Short-Term Actuarial Math)*

*Dean's Honour List*

## OTHER INTERESTS

KEJC Networking Club
Co-Founder
2022 - 2023

## EXPERIENCE

**CAAT Pension Plan, Toronto** Sep. - Dec. 2023
*Actuarial Co-op Intern*
- Simulated member profiles & projected future benefits using Excel tools.
- Executed asset-liability matching in Excel to ensure precise alignment & mitigate liquidity risks.
- Prepared detailed asset reports for senior management, summarizing liquidity & risk exposure.
- Updated annuity rates using data from the Canadian Institute of Actuaries & the Bank of Canada.
- Streamlined model update processes, reducing manual work & improving accuracy in pricing models.

**Cookhouse Sustainability Co-Creation Innovation Sprint**
*Competition* Jul. - Aug. 2023
- Contributed to a solution addressing sustainability in insurance using Design Thinking methods.
- Co-developed an app offering premium discounts based on users' carbon footprints.
- Conducted market research & validated the app's potential impact on insurance sustainability efforts.

**UofT Actuarial & CAS Competitions** Oct. 2022 - Feb. 2023
- Utilized R for data cleansing & identified key pricing influencers through regression analyses.
- Developed a risk-adjusted, profit-maximization pricing model backed by data-driven insights.
- Validated model accuracy with historical back-testing, refining pricing strategies to achieve a target loss rate.
- Applied the BF method for loss modeling to project future claims.
- Ensured compliance with MfAD guidelines in calculating statutory reserves.
- Delivered actuarial reports to senior actuaries.

# Yi Chen MFI

*Yi is a financial industry professional with five years of full-time experience encompassing financial market research, credit risk management, derivative portfolio construction, and investment banking business, driven by a deep passion for capital markets.*

## EDUCATION

Master of Financial Insurance
University of Toronto
2025

MSc with Distinction
Business Analytics
Warwick Business School
2021

BA Economics Sciences
Economics
Minor Law
Zhejiang University
2017

## SKILLS

Technical: Python; R; SQL; Excel; Tableau; SPSS; Stata

## AWARDS/CERTIFICATES

Outstanding Graduation Thesis
Warwick Business School
2021

## OTHER INTERESTS

Video Games
Piano
Ball-Sports Enthusiast

## EXPERIENCE

**China Great Wall Securities Co. Ltd., Shanghai, China** Aug. 2021 - Jun. 2024
*Analyst, Investment Banking Department*
- Evaluated profitability, asset liquidity, & risk metrics of clients, ensuring 100% compliance with regulatory standards.
- Conducted stress tests to assess clients' debt repayment capacities, securing non-default across various financial scenarios.
- Predicted bond offering prices with over 80% accuracy using KNN & regression models, based on data extracted from WIND.
- Developed Excel pivot tables & visual charts to illustrate bond market insights, influencing issuance strategy for optimal pricing.
- Led the end-to-end bond issuance of 9 financing lease & 12 consumer finance bonds totaling $3.60B, with zero defaults.

**Haitong Futures Co. Ltd., Shanghai, China** Dec. 2017 - Aug. 2020
*Trading Assistant, Options Department*
- Led 5 OTC projects combined with insurance, assessing VaR & maximum risk exposure based on historical market price.
- Collaborated with the trading team to manage a $6.8M fund, refining hedging models with MATLAB based on delta & gamma.
- Won 3rd Prize in the National OTC Options Hedging Competition in both 2018 & 2019, showcasing keen market perception.

*Analyst, Options Department*
- Processed large datasets with MLR and ARIMA models for research on commodity futures & derivatives.
- Formulated options trades & spread strategies driven by market research results, realizing an average annual return of 10%.

**Data Science Project** 2024
*Project - University of Toronto*
- Constructed classification models such as logistic regression, Naïve Bayes, & QDA, achieving over 80% accuracy & F1-scores exceeding 0.75.

# Yunqi (Annie) Du MFI

*Yunqi has a solid understanding of life insurance products, actuarial reserve calculations, pricing principles, and risk modeling. With strong programming skills, Yunqi excels at solving complex computational problems by developing efficient algorithms. Experienced in using GGY AXIS for modeling Whole Life, Universal Life, and Variable Annuities.*

## EDUCATION

Master of Financial Insurance
University of Toronto
2025

BSc Honours
Specialist Actuarial Science
Major Statistics
Minor Computer Science
University of Toronto
2023

## SKILLS

Technical: Python; R; Java; Excel; SQL; AXIS; VBA

## AWARDS/CERTIFICATES

*Society of Actuaries*
P (Probability)
FM (Financial Mathematics)
IFM (Investment & Financial Markets)
FAM (Fundamentals of Actuarial Mathematics)
SRM (Statistics for Risk Modelling)
ALTAM (Advanced Long-Term Actuarial Mathematics)

Dean's List 2019 - 2023

## OTHER INTERESTS

Managed club social media

## EXPERIENCE

**Term Life Insurance Pricing and Reserve Projection** 2024
*Project - University of Toronto*
• Calculated portfolio percentile premiums for risk classes (smokers & non-smokers), ensuring aggregate loss remained positive in no more than 10% of scenarios.
• Projected monthly benefit reserves using a recursive approach & validated through 1,000 Markov Chain simulations of 1,000 policyholders' death times, confirming consistency in reserve trends.

**Variable Annuity Modelling and Reconciliation** 2023
*Project - University of Toronto*
• Developed VA models with GMAB, GMDB, & GMWB guarantees, performing reconciliations against Excel to validate average death benefits & GMAB maturity benefits, & aligning financial projections with market scenarios.
• Managed the modeling & reconciliation of simplified VA products in AXIS, transitioning from a general account to a separate account, ensuring accuracy in key report lines including YTD retained earnings & investment income.

**Study on Popular Vote: Canadian Federal Election** 2023
*Project - University of Toronto*
• Streamlined data preprocessing process to ensure data integrity for accurate analysis, including age normalization, gender categorization, & coding for voting patterns.
• Applied Multilevel Logistic Regression & Logistic Regression models to analyze the electoral trends for the federal election; Utilized AIC for model comparison & implemented post-stratification to refine prediction.

**Digital Image Classification using Machine Learning** 2023
*Project - University of Toronto*
• Developed penalized logistic regression model in Python.

# Bingchen He MFI

*Bingchen is skilled in statistical modeling, data manipulation, visualization, and risk management, with a strong ability to handle complex analytical tasks and deliver insights. Known for effective communication and collaboration, Bingchen excels in teamwork, time management, and ensuring successful project completion in diverse settings.*

## EDUCATION

Master of Financial Insurance
University of Toronto
2025

BSc Honours
Statistics & Actuarial Science
University of Toronto
2024

BMus Specialist
Performance - Saxophone
University of Toronto
2023

## SKILLS

Technical: Python; R; SQL

## AWARDS/CERTIFICATES

*Society of Actuaries*
P (Probability)
FM (Financial Mathematics)
FAM (Fundamentals of Actuarial Mathematics)
SRM (Statistics for Risk Modelling)

## OTHER INTERESTS

Basketball; Tennis
Saxophone
Basketball Coach
Mathematics Tutor

## EXPERIENCE

**China Southern Asset Management Co. Ltd., Beijing, China** Aug. - Sep. 2023
*Financial Analyst*
• Conducted in-depth research on industry regulations & fund management guidelines to ensure compliance in all trading activities, optimizing data analysis processes via advanced Excel modeling.
• Monitored market dynamics & macroeconomic policies, regularly updating the performance of four short-term bond funds to support product marketing & promotional strategies, resulting in a 15% improvement in fund performance over the quarter.
• Served as presenter in roadshows for institutional investors, showcasing fund products & discussing sales strategies with key stakeholders, increasing investor engagement & market share.

**JP Morgan, Hong Kong (remote)** Jun. - Jul. 2023
*Quantitative Analyst*
• Applied Monte-Carlo simulation to forecast stock prices based on valuation metrics, liquidity metrics & risk metrics.
• Developed & implemented complex mathematical models by using "JointQuant" as Python's IDE to automate trading strategies, enhancing trading efficiency & accuracy.
• Conducted post-period evaluations to summarize & assess the performance of quantitative models, focusing on risk management & profitability.

**Life Insurance Pricing Strategy Analysis** 2024
*Project - University of Toronto*
*Overview: Designed a profit test to compare the mechanisms of expected reserve & actual reserve calculation to determine the client company's profitability.*
• Determined the expense-augmented premium by applying the Normal Approximation framework to compute the expected value & variance of the loss function, ensuring positive loss remained under 10%.

# Yuance (Angel) Jin MFI

*Yuance is a CFA Level I candidate skilled in financial and risk analysis, statistical modeling, and investment strategies. She is passionate about leveraging technology for data-driven decision-making and enhanced asset management in the financial sector.*

## EDUCATION

Master of Financial Insurance
University of Toronto
2025

Massachusetts Instutute of Technology
*Candidate MicroMasters Program*

BSc Honours
Statistics & Economics
University of Toronto
2024

## SKILLS

Technical: Python; R; SQL; C/C++; Photoshop

## AWARDS/CERTIFICATES

Dean's List 2022 - 2024

UofT Alumni Assoc. Academic Scholarship 2022

UofT International Experience Scholarship 2022

## OTHER INTERESTS

Yoga; Painting; Photography
Ultimate Frisbee

## EXPERIENCE

**GF Securities Co. Ltd., Beijing, China**

*Analyst, Investment Banking* Apr. - Aug. 2023

- Collaborated with wealth management analysts in data-driven decision-making for corporate & high-net-worth clients, quantitatively analyzing over 30 strategic meetings to enhance financial solutions & client outcomes.
- Utilized statistical & econometric models to examine the corporate sector, identifying quantitative development opportunities that guided the formulation of capital operation strategies.

*Quantitative Analyst, Capital Markets* Apr. - Aug. 2022

- Engaged in the implementation of bond issuance projects, aiding in the creation of bookkeeping records, managing the distribution & payment process, & archiving transaction drafts.
- Assisted in the research & analysis of bond pricing strategies, participated in the design of financial products, & contributed to the development of proposals for bond issuance.

**ZhengDa Gene Biotechnology Co. Ltd., Shenyang, China** Apr. - Aug. 2021

*Financial Analyst*

- Performed in-depth financial analysis & forecasting using statistical tools & financial modelling techniques to drive strategic & investment decisions, & developed financial reports & dashboards for tracking key performance indicators.
- Partnered with R&D & marketing teams to assess financial viability of new projects, ensuring optimal resource allocation for pioneering biotechnological advancements.

**JPMorgan Chase & Co. (Remote)** 2024

*Virtual Quantitative Research*

- Conducted comprehensive quantitative analysis including price data investigation & commodity storage contract pricing to support key financial decisions.

# Yiran (Rea) Li MFI

*Yiran is a multidisciplinary graduate student with expertise in finance and actuarial science, and a Financial Risk Management (FRM) Level II candidate. She specializes in fintech applications to enhance business value, focusing on investment strategies, risk management, and portfolio management.*

## EDUCATION

Master of Financial Insurance
University of Toronto
2025

BA Honours
Financial Economics
University of Western Ontario
2024

## SKILLS

Technical: Python; R; Excel VBA; SQL

## AWARDS/CERTIFICATES

*FRM (Financial Risk Management) Level II Candidate*

Dean's Honour List 2022 - 2024

## OTHER INTERESTS

Film Enthusiast

## EXPERIENCE

**China Life Pension Co. Ltd., Beijing, China** Jun. - Aug. 2024

*Annuity Researcher*

- Established a strong ability to convert data analysis into actionable investment strategies decisions, by contributing to weekly roadshows; Dynamically monitored fund brokers' performance by applying the Brinson attribution model for portfolio return decomposition in Excel.
- Collaborated with quantitative research team to conduct active alpha performance analysis & optimal mean-variance analysis by plotting efficient frontier for MOM & FOF multi-asset allocation in R.
- Leveraged Python to perform Time-Series analysis using ARMA model, for internal historical quarterly disclosure data from 2007-2010; Assessed Chinese pension structure from a worldwide perspective against pension systems of Japan, Europe, Australia, & North America.

**Shanghai Demeter Private Equity Management Co., Shanghai, China** Apr. - Jun. 2023

*Data Analyst Intern*

- Administered Python script to conduct detailed risk/return analysis based on daily price movement in equity trading book. Hedged capital market risk with risk management team by analyzing equity delta to effectively calculate VaR (95% confidence interval) & shape risk outcomes of target companies.
- Improved legacy issues & reduced repetition by developing automatic tools to dynamically adjust portfolio weights based on customers' risk appetite.

**University of Western Ontario** Sep. 2023 - Apr. 2024

*Research Assistant: Dr. Xu Jingjing*

- Utilized Bloomberg & Excel for data organization & manipulation to perform comprehensive analysis of major stock indices across multiple countries.

# Zeyu (Larry) Lin MFI

*Zeyu has four years of academic training in applied mathematics, specializing in quantitative analysis, mathematical modeling, and statistical methods. With two internships in quantitative trading, Zeyu brings strong problem-solving and data analysis skills. He also has a solid background in deep learning, including experience with neural networks and WNN.*

## EDUCATION

Master of Financial Insurance
University of Toronto
2025

BSc Honours
Mathematics & Applied Mathematics
Fudan University
2024

## SKILLS

Technical: Python; MATLAB; C; Excel

## AWARDS/CERTIFICATES

CFA Level I 2024

Scholarship for Outstanding Students 2023 - 2024

Mathematical Contest in Modelling (MCM) 2021-2022

## OTHER INTERESTS

Australian National University
Canberra, Australia
Exchange Program
Feb. - Jun. 2023
Swimming; Basketball; Tennis; Badminton; Music; Travelling

## EXPERIENCE

**Huatai Securities Co., Ltd., China** Jun. - Sep. 2023
*Quantitative Research Intern*
• Understood the social background & significance of quantitative trading, as well as the general process of quantitative trading investment.
• Completed a research report with the theme of "Trading Strategies & Model Research"; Organized the principles & usage of basic quantitative strategies, including moving average models, KDJ indicators, MACD, HANS123 strategies, etc.
• Utilized Tushare in Python for stock data retrieval & processing.

**BOKE Technology Co., Ltd., China** Aug. - Oct. 2022
*Quantitative Research Intern*
• Mined financial factor, developed Alpha strategy for consistent expected factor stock selection.
• Conducted empirical analysis on the analyst forecast data from Chaoyang Yongxu, including annual forecast data, & forecast data from institutions used in Chaoyang Yongxu's consensus forecast.
• Calculated the FOM factor & compared with the weighted forecast revision (WFR) factor.

**Research on Used Sailboat Price** Apr. 2023
*Project - Mathematical Contest in Modeling (MCM)*
• Established a model to estimate sailboat prices, calculated the model's accuracy, analyzed the regional impact on sailboat prices, simulated sailboat price predictions in the Hong Kong market, & conducted regional effect analysis.
• Selected gradient-boosted decision tree model after comparison between different models, optimized parameters using random & grid search for data analysis & mining.
• Used a random forest regression model based on Hong Kong market data to obtain predicted prices & conducted hypothesis testing by comparing the predicted prices & the listed prices.

# Xiyin (Terrance) Luo MFI

*Xiyin has practical experience applying financial market knowledge and programming to test moving average and linear regression strategies on Microsoft stock over an 18-year period. Passionate and resilient, Xiyin excels in managing both group and solo projects, demonstrating strong time management and multi-tasking skills.*

## EDUCATION

Master of Financial Insurance
University of Toronto
2025

BMath Honours with Distinction
Actuarial Sciences & Statistics
Co-operative
University of Waterloo
2024

## SKILLS

Technical: Python; R; Excel VBA; Macros; Java

## AWARDS/CERTIFICATES

*Society of Actuaries*
P (Probability)
FM (Financial Mathematics)
IFM (Investment & Financial Markets)
FAM (Fundamentals of Actuarial Mathematics)
VEE Economics/Accounting & Finance/Mathematical Statistics

## OTHER INTERESTS

Table-Tennis; Tennis; Football
Following the financial news & financial markets

## EXPERIENCE

**Master of Financial Insurance Project** 2024
*Project - University of Toronto*
• Using Normal Approximation Method to find premiums for smokers & non-smokers based on population sample of 1,000.
• Use the premiums to calculate reserves for smokers & non-smokers each month & compare the reserve with actual aggregate loss from simulations & reserves when mortality rate adjusted.
• Perform portfolio analysis & asset allocation to optimize the allocation of $1,000,000 investment portfolio across assets, ensuring expected annual return between 8-14% while minimizing risk.
• Using Regression methods to find the model that best predicts the premium of a new insured & using random forest & boosting method to find important factors that affect value of premiums.

**Beijing ZhaoHongXinYuan Investment Management Co., Chengdu, China** Sep. - Dec. 2023
*Quantitative Research Assistant*
• Collected 20,000+ funds' top 10 weighted stocks from 2007 to 2023 & cleaned 3 million stock data with Excel VBA & macros; Employed Vlookup function to create a summary of the data.
• Used Python Pandas & pyanimate function to create an animated bar graph of the data, providing a vivid visual presentation.
• Created a model to verify the feasibility of the investment strategy; updated the fund distribution annually.

**Region of Peel, Brampton, ON** Sep. - Dec. 2022
*Enterprise Asset Management Intern*
• Cleaned data in Excel for 3000+ massive basic infrastructure data.
• Applied Excel VBA to automate the scheduling process of replacing the information system in the Region of Peel; calculated the average daily workload of workers to create an appropriate work schedule.
• Created two 15+ minute videos to raise citizens' awareness of the completeness of the information.

# Robert Nii Ayikwei Okine MFI

*Robert is a skilled communicator with strong attention to detail, focused on teamwork to solve organizational challenges. He applies his knowledge in actuarial science, statistics, and finance to tackle complex analytical problems and drive success.*

## EDUCATION

Master of Financial Insurance
University of Toronto
2025

*MASTERCARD FOUNDATION SCHOLAR*

BSc Honours
Actuarial Science
Kwame Nkrumah University of Science & Technology
2020

## SKILLS

Technical: Python; SQL; LaTeX; MATLAB; Premia

## AWARDS/CERTIFICATES

Chartered Accountant
Institute of Chartered Accountants (ICAG) 2024

Financial Modeling & Valuation Analyst (FMVA)
Chartered Financial Institute
2022

## OTHER INTERESTS

President: Methodist Youth Fellowship 2023 - 2024

## EXPERIENCE

**Sanlam General Insurance, Ghana**

*Finance Officer* Oct. 2021 - Jul. 2024

- Managed department financial file system, simplifying audits & serving as the primary reference for financial inquiries.
- Conducted monthly bank reconciliations & GL account analyses for assets exceeding GH15M.
- Developed spending reports, abstracts, & charts to inform investment strategies, contributing to a 10% year-over-year growth.
- Boosted banc-assurance reconciliation efficiency by 90% through streamlined data management procedures.
- Efficiently processed all Account Payable bills, ensuring timely & full payment of authorized invoices while optimizing cash flow.

*Claims Processing & Reinsurance Officer* Sep. 2020 - Aug. 2021

- Analyzed claims & underwriting data to reduce unprofitable policies, preparing loss history & loss ratio reports for management decisions.
- Managed detailed Excel spreadsheets to track claims & key performance metrics, improving data analysis efficiency.
- Conducted surveys & prepared reports on claims management, helping prevent false claims & protect corporate assets.
- Coordinated risk placement for facultative reinsurance, increasing reinsurance commissions by 20%.

**Predicting Insurance Premiums Using Regression Modeling** 2024

*Project - University of Toronto*

- Developed a predictive model to estimate insurance premium amounts based on multiple factors from a dataset.
- Implemented a linear regression model to understand the influence of each factor on premium prices.
- Identified model limitations, indicating need for more complex approaches to capture data intricacies.

# Minghui (Lisa) Pan MFI

*Minghui (Lisa) leverages her actuarial and quantitative finance expertise to develop predictive models and manage insurance reserves. Skilled in data analysis and risk strategy, she adapts quickly to new tools and fosters collaboration across diverse teams.*

## EDUCATION

Master of Financial Insurance
University of Toronto
2025

BSc Honours
Actuarial & Financial Mathematics
Minor in Finance
McMaster University
2024

## SKILLS

Technical: Python; R; SQL; Excel

## AWARDS/CERTIFICATES

*Society of Actuaries*
P (Probability)

Dean's Honour List
2020 - 2024

## OTHER INTERESTS

Piano
Badminton
Travelling

## EXPERIENCE

**China Rongtong Property & Casualty Insurance Co., Shanghai, China** May - Aug. 2023

*Actuarial Intern*

- Assessed risk & quantified probabilities of losses for insurance products using historical data & risk models, & managed insurance liability & outstanding claim reserves to ensure sufficient reserves for future product demand & consumer satisfaction.
- Collaborated with management to develop advanced pricing strategies & premium rates, ensuring alignment with assessed risks & future demand for insurance products.
- Analyzed insurance plan performance, created detailed reports, & provided improvement recommendations.
- Generated predictive models using Python, R & Excel.

**Scotiabank (remote)** May - Jul. 2023

*Business Analyst*

- Played a key role in Scotiabank's Real-Time Reconciliation (RTR) platform launch by assessing digital products & providing actionable insights, ensuring successful implementation.
- Identified & recommended strategic product-based initiatives to enhance Scotiabank's market competitiveness.
- Researched & analyzed evolving landscape of FinTech & Artificial Intelligence in banking sector, staking at the forefront of emerging technologies to inform of strategic decision.

**Enhanced Healthcare Partners (remote)** May - Jun. 2022

*Data Analysis Extern*

- Leveraged Excel, SQL & R to analyze medical data.

**Life Insurance Pricing** 2024

*Project - University of Toronto*

- Developed pricing strategies & performed profit analysis.
- Optimized investment portfolios using mean-variance analysis & created a regression model in Python & Excel to predict premiums.

# Cheuk Yu (Jerry) Sin MFI

*Jerry has passed five actuarial exams and is preparing for the sixth in November. He is proficient in actuarial science principles and methodologies, with strong analytical and problem-solving skills demonstrated through exams and academic projects.*

## EDUCATION

Master of Financial Insurance
University of Toronto
2025

BSc Honours
Actuarial Science
Minor Finance
The University of Hong Kong
2023

## SKILLS

Technical: Python; Excel VBA; SAS-SQL; SQL; R

## AWARDS/CERTIFICATES

*Society of Actuaries*
P (Probability)
FM (Financial Mathematics)
IFM (Investment & Financial Markets)
SRM (Statistics for Risk Modelling)
ASTAM (Advanced Short-Term Actuarial Mathematics)
*Candidate FAM (Fundamentals of Actuarial Mathematics)*

Dean's Honour List
2022 - 2023

## OTHER INTERESTS

Sports; Hiking; Travelling

## EXPERIENCE

**Master of Financial Insurance Summer Project** 2024
*Project - University of Toronto*
- Calculated premiums & reserves for a group of policyholders given mortality & interest rate assumptions.
- Simulated the death time of 1000 policyholders 5000 times using Python for profit analysis.
- Calculated the mortality profits across 5 years given a change in the mortality rates.

**Fundamental of Actuarial Practice Project** 2023
*Project - University of Hong Kong*
- Defined the assumptions for pricing insurance products by gathering information from credible sources, such as the HK Life Table & US Treasury Yield Rate.
- Designed life insurance & maternity calculators in Excel VBA & automated the calculation process, as well as the calculations of key metrics such as profit vectors & profit margins.
- Conducted sensitivity analysis through VBA by altering the inputs such as the expense ratio, assumed hurdle rate, etc.

**AIA Group Ltd., Hong Kong** Jul. - Dec. 2021
*Actuarial Intern*
- Automated Data Input Procedures in Test Tools by creating Excel VBA codes.
- Performed Test Tools Checking for groups of insurance contracts under different measurement models for 10+ local business units, such as China, Malaysia, Thailand, etc. in AIA's 2021 Retrospective run.
- Modified existing SQL scripts & created new scripts to automate preliminary data validation & verification for data from the upstream before the SAS Execution.

# Yizhou (Tony) Sun MFI

*Yizhou is a highly motivated graduate with a strong academic foundation. He possesses excellent communication and critical thinking skills, demonstrated through both professional and volunteer experiences, including leading teams and managing projects with precision and efficiency. A quick learner with proven adaptability, Yizhou thrives in fast-paced environments.*

## EDUCATION

Master of Financial Insurance
University of Toronto
2025

BMath Honours with Distinction
Actuarial Science
University of Waterloo
2022

## SKILLS

Technical: R; VBA; Python; SAS

## AWARDS/CERTIFICATES

*Society of Actuaries*
P (Probability)
FM (Financial Mathematics)
SRM (Statistics for Risk Modelling)
*Candidate FAM (Fundamentals of Actuarial Mathematics)*

## OTHER INTERESTS

Comic Con & Game Expo
Building Lego models
Cooking

## EXPERIENCE

**PICC Property & Casualty Co. Ltd., China** Jun. - Aug. 2021
*Actuarial Intern*
- Optimized the auto insurance inspection spreadsheet using VBA & Microsoft Excel by inputting relevant data to check the validity of the data.
- Assisted Actuarial Departments with month-end tasks, such as organizing raw data using SAS/SQL & creating visual packages using IBM Cognos Transformer software.
- Strengthened the ability to prioritize & multitask by managing multiple projects simultaneously with colleagues to finish the Special Report on the Business Quality of New Energy Vehicles, successfully meeting deadlines.

**Life Insurance Pricing & Investment Strategy** 2024
*Project - University of Toronto*
- Calculated premiums & predicted reserves using R and Excel.
- Conducted profit analysis & optimized a portfolio to balance returns & risk.
- Presented findings & recommendations through a final report & group presentation.

**P&C Insurance Pricing** 2022
*Project - University of Waterloo*
- Built a GLM-based pricing model to assess profitability.
- Analyzed claim validity, business stability, & unpaid liabilities using Excel & VBA.
- Presented results through R & comprehensive reports.

# Guohao Tang MFI

*Guohao is passionate about exploring the financial field and is eager to apply his knowledge and skills to the Canadian financial market. With internship experience in Chinese securities firms, he conducted market research in the new energy sector and wrote detailed reports. Guohao also has strong data analysis, visualization, and presentation skills.*

## EDUCATION

Master of Financial Insurance
University of Toronto
2025

BSc & Econ
Financial Mathematics
Southwestern University of Finance & Economics
2024

## SKILLS

Technical: Python; R; SQL; Excel

## AWARDS/CERTIFICATES

Scholarship for Outstanding Students
2024

American Mathematical Modeling Contest 2023

College Entrepreneurship Competition 2023

## OTHER INTERESTS

Basketball; Flute; Opera
Computer Games

## EXPERIENCE

**Data Analysis & Insurance Project** 2024
*Project - University of Toronto*
• Utilzed Python for optimal portfolio modeling & determined the ideal portfolio weight allocation.
• Calculated optimal volatility corresponding for each given rate of return using mean-variance analysis.
• Created an efficient boundary chart to visualize the relationship between return & volatility in the portfolio.
• Realigned portfolio weight allocation based on company requirements to achieve portfolio optimization.

**Huaan Securities Co. Ltd., Shenzhen, China** Jun. - Sep. 2023
*Industry Research Intern, Power Equipment & New Energy Team*
• Collected & analyzed market data of relevant industries or companies.
• Kept abreast of important news, events & trends in the industry.
• Offered strategic advice based on research results, including market entry strategy, product positioning recommendations, etc.

**Caitong Securities Co. Ltd., Shanghai, China** Nov. 2022 - Feb. 2023
*Industry Research Intern, Computer Team*
• Tracked industry sales & hot topics, extracted & analyzed data, & wrote industry reports.
• Prepared individual stock meeting minutes & reviews.
• Compiled a comprehensive, concise industry report, including data visualizations, charts & graphs to support analysis.

# Shirui (Sally) Wang MFI

*Shirui is a highly organized professional with a disciplined approach to time management and relationship building. Known for flexibility and adaptability, Shirui excels in dynamic work environments, consistently meeting tight deadlines and adjusting to changing client needs.*

## EDUCATION

Master of Financial Insurance
University of Toronto
2025

BSc Honours
Actuarial & Financial Mathematics
McMaster University
2024

## SKILLS

Technical: SAS; R; Python; Power BI; Final Cut Pro

## AWARDS/CERTIFICATES

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

## OTHER INTERESTS

Singing
Calligraphy
Playing Pipa
(Chinese Instrument)

## EXPERIENCE

**Master of Financial Insurance Summer Project** 2024
*Project - University of Toronto*
• Completed a summer project focused on actuarial analysis of smoker vs. non-smoker premiums & calculating company reserves using Python. Conducted detailed comparisons between predicted & real reserves to assess accuracy & improve financial forecasting.

**Sunshine Insurance Group Co. Ltd., Zhejiang Branch/Hangzhou, China** May - Jun. 2023
*Intern, Department of Actuarial, Underwriting, Claims, & Financial Actuarial Department*
• Contributed to meetings analyzing traffic accident data, utilizing Excel to assess insurance parameters & determine adjustments to car insurance coefficients.
• Utilized SAS for data import, management, & analysis, identifying factors affecting accident rates & recommending premium coefficient adjustments.
*Underwriting, Claims, and Financial Departments*
• Supported customer data management, claims processing, & financial operations, including tax-related matters, across underwriting, claims, & financial departments.

**Ontario High School Physics & Mathematics**
*Tutor* Mar. 2022 - Present
• Provided weekly online one-on-one math & physics instruction to four high school students from 10th to 12th grade, continuously supporting their academic growth & improving their exam performance.

# Zhenshen (Andrew) Wang MFI

*Zhenshen (Andrew) has extensive experience in data-driven automation and process improvements, creating innovative tools to enhance efficiency. With strong programming skills, a sense of ownership, and versatility, Andrew has excelled in pricing and valuation roles.*

## EDUCATION

Master of Financial Insurance
University of Toronto
2025

BMath Honours
Actuarial Science & Statistics
University of Waterloo
2024

## SKILLS

Technical: AXIS; SQL; VBA; Excel; SAS; R; Python; Racket

## AWARDS/CERTIFICATES

*Society of Actuaries*
P (Probability)
FM (Financial Mathematics)
IFM (Investment & Financial Markets)
SRM (Statistics for Risk Modelling)
FAM (Fundamentals of Actuarial Mathematics)
*Candidate ASTAM (Advanced Short-Term Actuarial Math)*

Dean's Honour List

## OTHER INTERESTS

UW Actuarial Science Club

## EXPERIENCE

**Canada Life Assurance Company**
**London, ON** Sep. - Dec. 2023
*Actuarial Intern, Individual Insurance Valuation Initiatives*
• Supported optimization projects enhancing valuation or model efficiency & improving AXIS version upgrade process.
• Led the AXIS model development harmonizing policy information of 3 subsidiaries & merging IFRS17 into IFRS4.
• Automated the summarization of AXIS outputs on SQL servers with VBA, expediting the change impact quantification.

**Munich Reinsurance, Toronto, ON** Jan. - Apr. 2023
*Actuarial Intern, Individual Reinsurance Solutions*
• Made new business & underwriting recommendations by modelling risk profile & profitability for quotes over risk limit.
• Produced analyses & qualitative recommendations by tailoring existing models for smaller quotes.
• Implemented mortality, lapse & interest rate basis changes into AXIS models & produced impacts.

**Aviva Canada, Markham, ON**
*Actuarial Intern, Street Pricing* May - Aug. 2022
• Analyzed the rate adequacy of Manitoba Habitational (HAB) Insurance & supported inforce management initiatives.
• Reviewed & updated rates in HAB business, focusing on properly reflecting experience in key rate differentials.
• Performed sensitivity analysis of a 5% premium decrease in condo insurance by projecting policyholder behaviours.
*Actuarial Intern, Commercial Auto Pricing* Sep. - Dec. 2021
• Analyzed the price adequacy of corporate auto insurance policies.
• Developed a switch-based data processing tool in SAS to visualize data patterns & enhance actuarial judgments.
• Assisted in actuarial judgments, producing credit score reports & assessing clients' creditworthiness.

# Xueyan (Jasmine) Yao MFI

*Xueyan excels in problem-solving, leadership, and teamwork. She is skilled in data analysis, using statistical methods for prediction models and financial insights. With a passion for learning, she approaches tasks with enthusiasm and patience.*

## EDUCATION

Master of Financial Insurance
University of Toronto
2025

BSc Honours
Statistics - Quantitative Stream
University of Toronto
2024

## SKILLS

Technical: Python; R; Excel

## AWARDS/CERTIFICATES

Dean's Honour List
2020 - 2024

## OTHER INTERESTS

Dancing
Piano
Badminton & Table Tennis
Travelling

## EXPERIENCE

**Portfolio Optimization Project** 2024
*Project - University of Toronto*
• Conducted Mean-Variance Optimization Analysis, developed efficient investment strategy for a $1,000,000 portfolioby optimizing asset allocations among stocks & GICs to maximize returns while minimizing risk within specified constraints.
• Applied financial modeling techniques to construct an efficient frontier, demonstrating the trade-off between risk & return; Visualized key metrics using Excel and R , & presented results with clear, data-driven insights.
• Re-assessed & adjusted strategies after market shifts, ensuring alignment with the company's investment goals & risk tolerance.

**Industrial and Commercial Bank Of China**
**Nanjing, China** Jul. - Sep. 2023
*Intern*
• Assisted in conducting financial analysis, risk assessment, & shareholding structure research, contributing to more precise budgeting & forecasting processes.
• Assisted managers by performing credit risk assessments & engaging with clients to understand their financial needs, streamlining loan application processing, & increasing client enrollment in pension insurance.
• Identified areas for efficiency improvements in operational processes, ensuring strict adherence to internal controls & compliance procedures in transactional activities.

**Data Analysis & Prediction Project** 2023
*Project Leader - University of Toronto*
• Identified significant factors impacting disease recurrence, establishing a predictive model that categorized patients' recurrence risk, enhancing subsequent screening & application.
• Performed missing value processing to preserve original data.

# Mingyang (Kelly) Yi MFI

*Mingyang, a graduate in Quantitative Economics and Mathematics, has developed strong analytical skills and with a keen interest in data and quantitative analysis. She excels in communication and time management while maintaining a passion for life-long learning.*

## EDUCATION

Master of Financial Insurance
University of Toronto
2025

BA Honours
Quantitative Economics
Minor Mathematics
University of California, Irvine
2024

## SKILLS

Technical: Python; C++; R

## AWARDS/CERTIFICATES

Dean's Honor List
2020 - 2024

## OTHER INTERESTS

Figure Skating
Volleyball

## EXPERIENCE

**Master of Financial Insurance Summer Project** 2024
*Project - University of Toronto*
- Utilized mean-variance optimization in Python to find the optimal portfolio of a 5-year investment in a company.
- Minimized expected volatility at 6% & maximized expected return at 8%.
- Presented the optimal portfolio & profits at the end of 5 years to program faculty.

**Machine Learning Project** Jan. - Mar. 2024
*Project - University of California, Irvine*
- Performed quantitative analysis of a car market to determine effective features for car price in Python.
- Used AIC, BIC, cross-validation, backward method, & forward method to find the most appropriate features.
- Concluded that AIC, backward method, & forward method have the same results & narrow down features from 13 to 8.

**Machine Learning Project** Mar. - Jun. 2023
*Project - University of California, Irvine*
- Implemented Logistic Regression to predict logical game results based on previous 12-year game data.
- Utilized Altair to visualize results.
- Applied Decision Tree Classifier to test overfitting & obtain 88% accuracy

**Bank of Beijing** Jun. - Sep. 2023
*Quantitative Researcher*
- Implemented Random Forest to analyze the factors importance of digital transformation in Python.
- Concluded that digital transaction volume, digital account numbers, & availability of mobile platforms are the main factors.
- Applied ARDL model to predict monthly digital transaction volume in 10 years.

# Xueqi Zhang MFI

*Xueqi has a solid foundation in quantitative finance and statistics, with experience in risk modeling, portfolio optimization, and strategic asset allocation. Skilled in automating processes, data analysis, and financial modeling, she has developed reporting tools and worked with large datasets in dynamic environments.*

## EDUCATION

Master of Financial Insurance
University of Toronto
2025

BSc Honours
Mathematics & Statistics
Co-op
McMaster University
2024

## SKILLS

Technical: Python; SAS; SQL; R; Power BI; Excel VBA

## AWARDS/CERTIFICATES

*Candidate CFA Level I 2024*

Bloomberg Market Concepts (BMC)
2024

## OTHER INTERESTS

Hiking
Travelling
Swimming
Cooking

## EXPERIENCE

**Royal Bank of Canada, Toronto** May - Aug. 2023
*Business Analyst (Co-op)*
- Automated data extraction & consolidation process using Python, improved reporting efficiency & reduced processing time by 40%.
- Assisted in refining financial models for forecasting loan portfolio cash flows & assessing risk.
- Collaborated with cross-functional teams to develop Power BI dashboards & delivered real-time insights for senior management.
- Analyzed financial data on internal business units, identified trends & variances that supported resource allocation decisions.

**Ontario Energy Board, Toronto** May - Dec. 2022
*Major Rate Applications and Consolidations Analyst (Co-op)*
- Developed advanced Excel-based models to streamline the analysis of consolidation proposals & impact on energy market.
- Leveraged VBA to automate data processing for regulatory reports, significantly reducing manual workload & improving accuracy.
- Analyzed large operational & financial datasets from energy entities using statistical methods to support rate application decisions.

**Hello Fresh, Toronto** Jan. - Apr. 2022
*Marketing Data Analyst (Co-op)*
- Led performance analysis of marketing campaigns, utilized SQL to query databases & uncover trends that informed strategies.
- Automated the generation of marketing performance reports using Power BI & increased efficiency in campaign evaluation.
- Analyzed customer segmentation data to optimize targeting efforts & built predictive models to forecast customer behaviour.

**Portfolio Optimization & Risk Management Project** 2024
*Project - University of Toronto*
- Optimized a portfolio using Modern Portfolio Theory to balance risk & return based on asset performance.
- Used Python to calculate Sharpe ratio, expected return, & volatility.

# Hui Yan (Fiona) Zhang MFI

*Huiyan is an expert in data analysis and visualization with hands-on experience in financial analysis. Recognized for developing data-driven solutions, Huiyan earned competitive recognition at the Rotman MMA Datathon. She demonstrates strong leadership and collaboration, managing research projects and delivering actionable data insights.*

## EDUCATION

Master of Financial Insurance
University of Toronto
2025

BSc Honours
Statistics & Economics for Management Studies
University of Toronto Scarborough
2024

## SKILLS

Technical: Python; R; Excel; Tableau

## AWARDS/CERTIFICATES

UTEA 2024

Dean's List
2021 - 2023

## OTHER INTERESTS

Pilates

## EXPERIENCE

**OISE, University of Toronto** Jan. 2024 - Present
*NLP Developer (Part time), Curriculum Text Analysis Research Project*
- Created a custom pipeline in Python using OpenAI's API to automate the analysis of curriculum documents, scoring passages for their relevance to Equity, Diversity, & Inclusion (EDI) principles, that reduced workload for humanities graduate students.
- Built a system that used GPT models to score text passages for EDI content, ensuring transparency by extracting relevant excerpts & providing explanations for the scores.
- Utilized Pandas to manage data flow, reading input data from CSV files, processing through NLP pipeline, & outputting results, including scores & rationales, into CSV format for easy analysis.

**University of Toronto Scarborough** May 2023 - Feb. 2024
*Research Assistant*
- Ensured data integrity & enhanced dataset quality through verification & rectification of funding data for 72 Ontario school boards, employing systematic data consistency checks & improvements via R programming language.
- Created dynamic data visualizations in Tableau with filters & geospatial mapping; conducted statistical analyses including regression modelling & hypothesis testing to identify revenue trends.
- Collaborated with multidisciplinary researchers & educators; compiled reports & presentations for research findings.

**Predicting Customer Premiums: A Machine Learning Approach** 2024
*Project - University of Toronto*
- Conducted exploratory data analysis using Python (Pandas, Seaborn) & SQL, linking & pre-processing an insurance dataset with 5,300+ customer data points.

# Simiao (Serena) Zhang MFI

*Simiao, a dedicated actuarial graduate with a strong foundation in actuarial science and mathematics, is skilled in predictive analytics, investment analysis, and quantitative research. Having exceptional communication abilities, she excels at building relationships with both internal and external partners, and has a flexible and adaptable approach.*

## EDUCATION

Master of Financial Insurance
University of Toronto
2025

BSc Honours
Statistics - Actuarial Mathematics Joint Program
University of Manitoba
2023

## SKILLS

Technical: Python; R; SQL; MATLAB

## AWARDS/CERTIFICATES

*Society of Actuaries*
P (Probability)
FM (Financial Mathematics)
SRM (Statistics for Risk Modelling)
FAM (Fundamentals of Actuarial Mathematics)

Dean's List: 2019; 2021; 2022

## OTHER INTERESTS

Fishing
Hiking; Travelling

## EXPERIENCE

**Master of Financial Insurance Summer Project** 2024
*Project - University of Toronto*
- Developed a pricing strategy for new term life insurance product.
- Provided the monthly prediction benefit reserves for the first 5 years.
- Applied mean-variance optimization to calculate the expected annual return with minimal volatility in the range of 8% to 14% over a five-year period.

**Medical Insurance Premium Prediction with Machine Learning** 2023
*Project - University of Manitoba*
- Constructed a prediction model; utilized Python to complete data cleaning for the dataset; eliminated missing values & incorrect values, % transformed all categorical data to numerical data for further analysis processes.
- Performed exploratory analysis by plotting the data & visualizing the distributions; Split the dataset into training & testing datasets to select an appropriate linear regression model.

**University of Manitoba** Sep. - Dec. 2022
Teaching Assistant
- Frequently collaborated with course instructors for orientation & guidelines for grading & marking assignments.
- Regularly discussed students' inquiries regarding course concepts & calculation methodologies with instructors to improve their understanding.

**Variable Annuities** Sep. - Dec. 2022
*Project - University of Manitoba*
- Utilized MATLAB to implement Crank-Nicolson finite difference scheme to solve the American option with early exercise.
- Validated the code by European option with closed-form solutions.

# Qianrilin (Andy) Zhang MFI

*Qianrilin has a strong foundation in statistical theory and has completed university-level courses in programming, actuarial science, and economics, offering creative problem-solving approaches. With hands-on experience in AI-generated content from an internship, he has honed time-management, communication, and multi-tasking skills, excelling under tight deadlines.*

## EDUCATION

Master of Financial Insurance
University of Toronto
2025

BSc Honours with High Distinction
Statistical Sciences Specialist: Theory & Methods
Minor Mathematics
University of Toronto
2024

## SKILLS

Technical: Python; R Studio; SQL; Tableau

## AWARDS/CERTIFICATES

New College In-Course Scholarship 2022

Dean's List
2021 & 2024

## OTHER INTERESTS

Swimming
Drawing
Handicraft & miniture models
Online Video Creating

## EXPERIENCE

**Reserve & Premium Analysis** 2024
*Project - University of Toronto*
- Calculated the predicted reserves of the company in a case study using Python & Excel.
- Compared results from multiple regression models to predict the premium amount paid by customers using R.
- Summarized above findings into a report, providing suggestions by making a profit analysis.

**Stepfun (JieYueXingChen) Technology Co. Ltd., Shanghai, China** May - Aug. 2024
*AIGC Research Assistant*
- Assisted with the buildup of a mobile online community app currently available for download in App Store.
- Utilized multiple packages (Stable-Diffusion, Kohya) to assist with gathering data for training multimodal models.
- Examined & enhanced the quality of pre-trained models by testing them with different adjustable parameters.
- Maintained a worklog that records daily progresses, & compiled summary notes for debriefing.

**Simulations on Discriminative K-means for Clustering**
*UofT Reading Course* Sep. - Dec. 2023
- Read machine learning related papers, & checked materials extensively to assist in understanding & presentation.
- Presented independently on a weekly basis to deliver reading findings to supervisor & members.
- Coordinated with another member to review paper 'Clustering by Passing Messages Between Data Points', & deliver presentation to other members & faculty in Department of Statistical Sciences.

# MFI GRADUATE STUDENT AWARDS

## MFI Academic Achievement Award

**Awarded to the MFI graduate with the highest overall academic performance and participation throughout the year.**

**Wei Zhe (Nicholas) Lin** obtained his Bachelor's degree in Actuarial Science with a Minor in Finance from the University of Hong Kong. Nicholas was consistently our top-performing student in the program academically, gaining valuable experience during his work term at Manulife and will return to Manulife in January. Congratulations on your achievement Nicholas!

*"The MFI Program was a challenging yet rewarding journey for me. The intense coursework provided opportunities to apply theoretical concepts to real-world scenarios. Through group projects, I collaborated with classmates, learning from their diverse expertise and gaining insight into differing perspectives.*

*I am deeply honoured to receive the Academic Award as this recognition reflects the hard work and dedication I have put into my studies. I am sincerely grateful for this acknowledgment, and it encourages me to pursue excellence."*

## MFI Business Acumen Award

**Awarded to the MFI graduate with the highest overall performance in their work placement, presentations, and discussions throughout the year.**

Ting Wang earned a Bachelor's degree in Actuarial Science with a specialization in Statistics and a minor in Economics from the University of Toronto. He excelled in his poster presentation and one-minute elevator pitch, where he summarized his work term with Manulife, securing first prize at the MFI Grad Expo. Congratulations, Ting!

*"The MFI program has been a pivotal chapter in my academic and professional development. Prior to joining, I was on a very traditional actuarial path. However, I've gained comprehensive insights which opened my eyes to new career possibilities beyond traditional actuarial roles.*

*The collaboration with peers and guidance from highly knowledgeable faculty has been especially enriching, providing both challenge and inspiration. I leave the program not only with deeper technical knowledge but also with a clearer sense of direction in my career path: a non-typical actuary."*



## MFI Ambassador Award (Joint Recipients)

**Awarded to the MFI graduate who demonstrates the values and qualities of the MFI program, and nominated to be their cohort's best representative.**

**Nicholas Adegbe**, a recipient of both a MasterCard Foundation Undergraduate and Graduate Scholarship, completed his undergraduate studies in Actuarial Science at Kwame Nkrumah University of Science & Technology in Ghana.

He continues to be an advocate for the MFI Program, actively engaging with peers, visitors, and international audiences. His contribution has earned him the MFI Ambassador Award. Well done Nicholas!

*"The diverse curriculum of the Master of Financial Insurance program exposed me to numerous opportunities across multiple sectors and equipped me with industry-demand skills that will enable me to thrive in Finance and Insurance. Engaging in thought-provoking case studies, I was challenged to devise solutions to real-world Industry problems.*

*The program's strong emphasis on practical application and frequent interactions with industry professionals significantly broadened my network and knowledge base."*

Before joining the MFI Program, **David Agbeko** earned his Bachelor's degree in Actuarial Science from Kwame Nkrumah University of Science & Technology in Ghana.

David a MasterCard Foundation Graduate Scholar, entrepreneur and published author, has demonstrated tremendous support to his peers and the MFI Program throughout the year. Congratulations David on your well-deserved award!

*" Joining the MFI program exposed me to vast career opportunities and deepened my pursuit of my most daring dreams. Through the program, I enriched my network, served my peers and experienced significant personal growth.*

*As I advance in my career journey, I envision establishing businesses and financial institutions that drive innovation, foster inclusivity, and enhance financial security, particularly in Africa. Thanks to the Mastercard Foundation Scholars Program for making this journey and experience possible."*


# GET IN TOUCH!

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