**Shilun (Sherry) Dai**

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**QUALIFICATIONS**

* Passed SOA P & FM / CAS Exam 1 & 2, and SAS Base *May 2020 – Nov. 2020*
* Skills: Python (PyTorch, JAX), R (tidyverse, dplyr), SAS, SQL, Power BI, Microsoft Excel (pivot table, VBA), Radar

**EDUCATION**

**Department of Statistics, University of Toronto Toronto, ON**

*Bachelor of Science, Actuarial Science Specialist and Statistic Science Major**Sep 2018 - Apr 2023*

**PROFESSIONAL EXPERIENCE**

Munich Reinsurance Company of Canada Toronto, Canada

*Actuarial Co-op – Property & casualty Reserving & IFRS 17 Team Sept. 2022 - Apr. 2023*

* Developed a R program to summarize cash flows to a particular granularity and compared them under IFRS 4 and IFRS 17, and then utilized Power BI to visualize patterns across several quarters and lines of business
* Supported the 2022 Appointed Actuary Report by conducting stress test, including financial condition test and scenario test, justifying the methods used, and reconciled data in report with Excel

Intact Financial Corporation Toronto, Canada

*Actuarial Analyst Intern – Commercial Lines Automobile Actuarial Pricing Team* *May 2022 – Aug. 2022*

* Extracted Motor Vehicle Records data in SAS, investigated reasons for broker orders going over budget, exported data to Excel for cost analysis, reducing total loss by 13%
* Imposed SQL to eliminate the endorsement calculation errors in Auto Strategy Monitoring Report, reconciled the outcome with system files in Excel, and improved the Execution by 9.8%

The Wawanesa Mutual Insurance Company Toronto, Canada

*Actuarial Intern – Enterprise Risk Management Department* *Jan. 2022 – Apr. 2022*

* Enforced VBA to execute sensitive test to investigate the factors that significantly affect final indication value, created bottoms to automate the whole procedure in Excel, saving 90% of the labor for the following year
* Implemented Radar to perform reinsurance earthquake data review, identified invalid sources or data fields, and documented from completeness, accuracy, and consistency perspectives to reveal potential implications and ramifications

**Guorong Securities Hangzhou, China**

*Product Manager Assistant* *Jan. 2020 – Apr. 2020*

* Monitored capital flow and data classification, checked abnormal data or outliers, and completed relevant reports
* Created individual stock benefit models and portfolio strategies, utilized stratified sampling and multi-factor linear model index enhancement strategies, reduced transaction costs, and optimized investment portfolios

**PROJECT EXPERIENCE**

Trading financial derivatives on RPM Toronto, ON

*Independent work Jul. 2022 – Aug. 2022*

* Consulted the 10 companies’ annual financial reports and investigated the historical stock prices of related commodities, exchange rates, and other assets to determine whether to hedge or speculate
* Priced financial derivatives using the Black-Scholes model and designed portfolios incorporating options and futures, executed the strategies using NASDAQ ticker symbols in RPM
* With the allotted $200 million dollars in RPM, the account ended up with $242 million dollars and the report achieved first place in the class with a grade of 93

Research on the Intention of US President Election in 2020 Toronto, ON

*Group Member* *Oct. 2020 - Nov. 2020*

* Implemented R to fit 2020 survey data of 64,798 U.S. citizens which contains age, education, income and etc into a multilevel logistic regression
* Utilized post-stratification method to partition survey data into demographic cells based on explanatory variables, which improves the efficiency of estimators by summing the cell estimates as adjusting weights for different states
* Applied the obtained weights to the model using 2018 population data in order to calculate the probability of supporting Donald Trump in each state
* Summed up the electoral votes from each state if the probability of voting Donald Trump is greater than 0.5, the prediction of the final result is only 37 votes different from the actual outcome

**EXTRACURRICULAR EXPERIENCE**

**Chinese Volunteer Association, University of Toronto** **Toronto, Canada**

*President* *Sep 2019 - May 2020*

* Initiated Reading Week Camping and Food Festival activities, cooperated with 7 departments, raised $3000+ donations
* Taught Computer science and Mathematics using PowerPoint, organize 1-1 office hours, benefited 50+ students

**INTERESTS**

* Interests: Scuba Diving (PADI Open Water & Dry Suit Diver), rock-climbing, snowboard