Interview Prep

* 1. Introduction
     + 1. My name is Sherry. Well, I’m currently in my fourth year at the University of Toronto, majoring in Actuarial Science and Statistical Science. I can’t be more grateful for what this program had brought me, technical skills, communication skills, critical thinking, and most importantly, self-directed learning. I have built a strong understanding of both Life and P&C Insurance, mainly focusing on reserving functions and life contingency, but have been exposed to Pricing techniques as well.
       2. I’m currently working at Munich Re as an Actuarial Intern in Reserving Team, focusing on IFRS 17. I also worked at Intact and Wawanesa Insurance in previous terms. Data analysis and result interpretation are big parts of my work. I developed that skill through some projects using Excel VBA, SAS and R.
       3. My characteristic is that I pay attention to people a lot. My friends said that I’m like Mantis from Guardians of the Galaxy. I can sense people’s feelings usually faster than others, and I will try to alter them if they ever feel down. I just want to bring positive energy to everyone around me.
       4. Last but not least, besides of study, I did a lot of travelling. I have been to places like New York, Tibet, Vancouver and etc. It’s fascinating to see the world and how people who are raised in different backgrounds can have perspectives towards things so differently. Outdoor activities are also my favorite. I often go scuba diving during summertime in lake Ontario. And that’s it for now I think.
  2. Munich Re
     1. I collaborated with my coworkers to generate cashflows and compare them between IFRS17 and IFRS4 standards.
  3. Intact

1. During my internship at Intact, I was assigned to investigate reasons for broker orders of Motor Vehicle Records going over budget. I extracted data from SAS and imported it into Excel before performing cost analysis and presenting the results to the manager. The data looked messy in Excel at first, such that I decided to make some eye-catching charts and graphs comparing costs across months. I also create a user-friendly and self-service interface in Power BI, which better visualized the cost analysis. I presented the final result clearly and precisely, using a slideshow in our meeting. My charts helped everyone in the meeting to stay engaged, and our brainstorming session about our next steps went well. Finally, the investigation helped our company save the cost by 13%, and my PowerPoint and Power BI files are saved as templates and were used by Intact throughout Canada.
2. At that time, I barely have any knowledge about SAS and SQL. I just watched some videos on YouTube and have some SAS onboarding training. I never worked on a large project involving SAS. But last week, I went to work on a project which involves using SAS to write a report. I was so anxious because it was pretty challenging for me. But I know this is the best way for me to solidmy knowledge and coding skill. So right now I was trying to google around. Also, my coworkers and mentor were very nice to me. So sometime I will ask for their help.
   1. Wawanesa Insurance (with challenge)
3. In Wawanesa, the biggest challenge is to keep learning new things.
4. The first challenging project I worked on is using VBA to prepare Bridging Summary for British Columbia Homeowners’ Catastrophe Analysis, which is also known as sensitive test for indication. The background about this project is that we want to find out which factor affects the current year’s indication mostly. We change some previous year variable values to current year’s value. So start from last year indication file, for each step, we will only change one variable value that might affect the final indication, to the current year’s value. These variables include but not just exposures, LDFs or CAT load. For example, we will only change CAT load in original last year indication file for step 1. The indication will change accordingly from previous year value to current year value. We will record this indication change. Then for step 2, we will change another different variable, such as LDF and get indication change for step 2 as well, and you know, we go so on and so forth. Finally, we have like 10 steps and their corresponding indication changes. As you know, after we complete the final step, we should get the current year’s indication file. Finally, we will generate all steps indication change and plot the trend to get the conclusion which factor affects indication the most.
5. Previously, we make bridging summary manually by copying and pasting data from more than 10 files. But now we develop a VBA program to automate this process. At the beginning, I barely know VBA program. You know, it’s very hard to get started, I didn’t even know how to open the VBA window. What I did is to first ask for my manager and coworkers if there are any study materials on VBA they recommend in our company website. And then I watched some onboarding videos. I also found some tutorials on YouTube. So I learned a lot from there. If I come across any problems, I will google around. My coworkers are always willing to help as well. After doing a bunch of research, and I’m now an expert on VBA. So by developing this program, we don’t need to conclude bridging summary manually step by step next year. We only need to run the corresponding VBA code and then it will give us all the files we want for the sensitive test. That’s about the bridging summary or sensitive test project.
6. Another project I worked on is independent earthquake exposure data review for Reinsurance Department. My coworker and I compared reinsurance data and pricing data in Radar. We did an independent data-pull of some key variables in the reinsurance file, and then perform left-join to this data file and pricing data to identify any variable discrepancies. If there is any problems, we will double check this policy holder’s information in source systems, such as Enterprise Data Warehouse and Policy center. Finally, we wrote a report about these problems and suggestions from three aspects, which are completeness, accuracy, and consistency, to document the potential impact to the reinsurance model.
   1. Guorong Securities
      * 1. Basically what we do is to predict the customers’ ability of purchasing our financial products.
        2. Specifically, we use Rstudio and excel to perform alpha extraction of useful insights from large structured and unstructured data sets. The data set contains information about our customers, for example, their name, age, gender, marital status and the history of purchasing our financial products and etc.
        3. To deal with these data, I often construct a multiple linear regression model about their stock benefits and apply hypothetical test in RStudio. Then we utilize stratified sampling to divide our customers according to different provinces because of the economic gap. Then we have enough information to predict their willingness of purchasing our financial products. Finally we import data to Excel to do further analysis. After doing so, we will write the report and hand the information of customers who have a high probability of purchasing our products to marketing department. They will do further promotion. That’s basically what we do.
   2. Conflicts/disagreements (371 project)
      1. I remember when I was doing a project which is to **Analyze the reserve performance for automobile insurance**, I have totally different opinion with my teammates on selecting Loss Development Factors because this process is very subjective.
      2. Some background about this project: raw data extracted from the year 2020 Automobile Insurance Experience with Private Passenger Automobile in Ontario. This project focuses on one long tail coverage, which is Accident Benefit - Medical Rehabilitation and one short tail coverage, which is Third Party Liability - Direct Compensation. In this data set, we have many variables, for example, paid claims, reported claims, earned exposures, earned premiums and etc.
      3. After we import and filter the data in excel, we started to construct development triangles, you can also treat them as ratio tables. For example, you can find Average Paid claim triangle, Reported pure premium triangle and etc. The development triangles are constructed semiannually from 2009 to 2020. Then, we calculate age-to-age factors and select the ratio for each accident year as Loss Development Factors, which is also called LDF.
      4. In the selection process, one of my teammates want to make LDF to follow an increasing or decreasing trend, because it can represent future trends. But I think even though it makes some sense, we still need to make some special considerations. In year 2020, the pandemic started, so LDF need to be adjusted. Because of this disagreement, I scheduled a group meeting to talk about this. At first it seemed like we were in total conflict, but I was able to get her to realize that we were each concerned with two half of the solution. Only by combining our two contributions would we be able to succeed. Then we focused on the areas we excellent in and found a way to fit them together by doing some research online. Finally, our professor was also impressed to our methodology. As a result, we get 90% of full mark, which is top 3 of whole class.
      5. From this project, What I learned is that putting myself into others’ shoes is key to solve the problems.
   3. 遇到困难project (American President Election)
      * 1. I want to talk about a project where I went above and beyond what was expected of myself to complete it on time
        2. The project is about Predicting the American President election result in 2020. The background about this project is that we need to model the previous year data set in Rstudio and put current year’s data in our model to get our predictions.
        3. At that time we only understand that in most of the elections, candidates are elected directly by popular vote. But we don’t know that the American president is not elected directly by citizens. Instead, they’re chosen by “electors” through [a process called the Electoral College](https://www.archives.gov/electoral-college/about). There are currently about five hundred electors in total. We didn’t realize the rule and just deal with data sets received from our prof/supervisor.
        4. In last day before due date, I just realized the policy of American President election. We only need to generate the votes represented by different provinces from electoral college, instead that of all citizens.
        5. We are so anxious after we realize it because this is a pretty large project. If we change the assumption, we need to fix the initial r codes, and then re-analyze the result in our report. But luckily, we know our mistake before due date, so we can salvage some mark. We hold a meeting immediately to decide which person be responsible for fixing which part of the project. Everybody quickly make some changes of their part.
        6. At the end of that day, we all stay up very late of course, and finally we successfully fixed all r codes, reports and PowerPoint and submit it before due date. Eventually our prediction was very close to the final result.
        7. What I learn from this is that before doing any projects, we’d better understand the background or culture about the project, especially when we are given limited information. |||For example, in this case we can search the election policy in America on google or watch some YouTube videos to better understand it.
   4. Rstudio project
      * 1. The project is about the Intention of US President Election in 2020. First of all, we extract data from reliable websites, such as IPUM, including people’s age, education and marital status. Then we implemented RStudio to match propensity score and calculate regression model based on the personal information of 6479 U.S. citizens.
        2. The next step is to construct a logistic regression model to calculate voters’ probability of having higher income, also known as propensity score, matched voters with the closest score.
        3. Furthermore, we impressed the original dataset into a matched dataset to observe the equilibrium between treatment group and control group, obtained the impact of income on voting preference.
        4. Finally, we exercised logistics regression model on the compressed dataset to predict their voting preference and concluded voters from higher-income group reaching 37.77% probability of voting Biden. What I learned from this project is how to make predictions of people’s intention of election based on their personal information using rstudio.
        5. At the end of the term, we gave a presentation to the whole class and also wrote a report about it. As a result, we get 93% of full mark, which is top 2 of whole class.
   5. Insurance products
      1. Long tail coverage and short tail coverage
      2. Long tail coverage:

* AB - Medical Rehabilitation: provides compensation if you, one of your passengers, or a pedestrian is injured in a car accident, regardless of who was at fault. It covers things like rehabilitation treatment, income replacement, and other services that are needed for recovery.
* TPL – Bodily Injury: covers expenses associated with injuring a third party (someone else). It covers thinkd like Medical expenses and etc.
* AB – Disability Income: covers costs to replace the income if people can not work due to an auto accident
  + 1. Short tail coverage:
* Direct Compensation Property Damage: covers the cost of repairing your vehicle if it is damaged in an accident that is not entirely your fault.
* Collision: covers the cost of repairing your vehicle if it is damaged in an accident that is your fault
* Comprehensive: covers the cost of damages or replacement of your vehicle as a result of unexpected situations, such as fire, falling objects or theft.
  1. Communication
     1. During pandemic, I do have some difficulties on communication when all of us work from home. It’s not efficient to talk about the projects we were working on. But I get some tips from my manager and coworkers.
     2. First of all, we will choose to video call others if we want to talk about the project. When we are face-to-face, both my coworker and I can discuss the project openly, quickly and professionally.
     3. Moreover, when communicating with coworkers, I will respond with a smile, nod of the head or polite gesture that illustrates my feelings regarding their statements.
     4. Last but not least, when we have a meeting, I will listen to their ideas firstly and then use the opportunity to demonstrate whether I understand the message or need clarification. If my ideas are different from those of my coworkers, I think it’s important to be respectful and considerate of their feelings. However, I will be honest, and politely let them know my idea. These are the communication skills I learned from my last intern.
  2. Describe your approach and methodology in transforming raw data into useful information to help support a recommendation/solve a problem at work/in a school project. Provide an example of this.

1. First of all, I will extract [quantitative and qualitative data](https://monkeylearn.com/data-analysis/#quantitive-vs-qualitative) from reliable websites, such as IPUM
2. If this data set involves some unrelated variables, I will import data to SAS and only keep the information needed.
3. Then I will load all the data to analytical tools such as Excel or Rstudio for further analysis. For example, I will use pivot table in Excel to conclude some information in the data set or use hypothesis test in Rstudio to construct multiple linear regression model and detect outliers.
4. Finally, I will try to make some plots to investigate the trend of data and put some useful tables in our reports or PowerPoint.
5. For example, when I was doing an Analysis on Factors Influenced the Life Satisfaction Degree of Canadians in Rstudio, I used alpha extraction of large structured and unstructured data sets from reliable websites, constructed hypothetical test in RStudio, remove the outliers in data set and constructed a multiple linear regression model.
   1. What would you like us to know about yourself that you haven’t already shared here or in your resume?

I have been the president of University of Toronto Chinese Volunteer Association in 2019. What we do is to raise donations or earn profit from some events, like Reading Week Camping, Food Festival and ect, At the end of the term, we will donate this amount for students that is too poor to have education. I lead this organization in 2019 and get 3000 dollars profit. In summer time, we donate it to students, and I volunteered to teach Computer science and Mathematics in their schools. I also organize 1-1 office hours besides class. It benefits at least 50 students.

* 1. Why company?
     1. I'm interested in working in your company because I can see that, *[your company]* is one of the most digital and dynamic company in Canada. I’m happy to have access to technology whenever I work. But I also think innovation is very important. *[your company]* is a company with dynamic culture where employees are eager to succeed. Individuals are motivated and have a lot of company pride; the work environment is vibrant.
     2. Moreover, in this role, it’s a good opportunity for me to learn and grow my teamwork skills and technical skills, like excel and SAS skills. Also, my teamwork skills and technical skills could help *[your company]* to improve the model accuracy, analyze segmentation and design rating plan. I believe I can provide recommendations to drive profitable growth for *[your company]*. So we both would benefit personally, professionally, and financially. If I can come in here and solve problems and accomplish your goals, I know I can develop my career the way that I want to.
     3. I want to work with *[your company]* because italmost has the most students and new-grad jobs than other big companies. I want to work in a company that really value students and understands that students are the future leaders tomorrow.
  2. Why actuary (or consultant or financial analyst etc.)
     + 1. The first reason I want to be an actuary is because actuarial science is very practical. It’s about making decisions based on risks and use models or statistic distributions to predict the future loss. Applying knowledge from what I learned in class to solve the real life problems gives me a sense of success
       2. The second reason is that I really like Actuarial science exams. The exam system always pushes me to keep learning after class or after work. It prevents me from being lazy and procrastinating. And learning new staff always gives me good feeling. That’s the two reasons I want to be an actuary.
  3. Next career challenge
     1. The first challenge I’m looking for is to learn some technical skills I never know. Im not very familiar with SQL. I use SAS and Excel a lot. But you know, I’m a quick learner. I believe my SQL knowledge will be solid in project practice.
     2. Another challenge I’m looking for is to learn professional communication. I deal with data a lot, but have limited experience to communicate with customers. So I hope I have any chance to practice that skill.
  4. Describe the achievement you get.
     + 1. Pass a SOA exam is an achievement to me.
       2. Study under pressure
  5. Teamwork (people not contribute):
     + 1. Talk with the person.
       2. Maybe this person have no idea about this topic or just get lost. In this case, maybe we can communicate more.
       3. If this person has different idea with us, maybe we can talk about this problem or search online to see who is more reasonable
  6. Leadership
     + 1. Someone want to talk loudly and I agree with this person’s idea, I’m ok to be team member
       2. Nobody want to lead the team, I’m ok to speak loudly.
  7. Communication Skills
     + 1. Use common words. E.g. Variance(x) =
       2. Use some plots/tables to explain
  8. What’s your biggest weakness?
     + 1. My biggest weakness is also my biggest strength.
  9. Tell us about the last thing you’ve really “geeked out” on. 痴迷的事情
  10. What will you do if you are tracked in two urgent projects in work?
      + 1. Ask for manager/coworkers’ help. Write an outline of the way to do it. Give all customers’ information for them
  11. What else you want to tell us?
  12. What skills or experience you have that you could bring to a role or their team?
  13. What you want to do/learn
  14. How would others describe you?
  15. Questions
  16. What do you do in *[your company]* and which part do you like most?
  17. In my actuarial science classes we learned reserving and ratemaking, are these something your team works with every day? Which one do you think you use the most?

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| **Problem solving** | | | | | | | | | |
| Tell us about a situation where you went above and beyond expectations? This could be a work or a school example. | | | | | | | | |
| Give me an example of a time when you used good judgment and logic in solving a problem.  Steps? Resources used? (Problem Solving) | | | | | | | | |
| Have you ever been caught unaware by a problem or obstacle that you had not foreseen?  How did you handle it? | | | | | | | | |
| Give me an example of a time you were given an assignment or project to work on and were given very little instruction or direction.  How did you approach the situation?  What was the outcome?(Independence/Problem Solving/Resourcing) | | | | | | | | |
| The covid landscape has really changed the way we go to work and school. What challenges have you faced at work or school during covid, and how did you overcome them? | | | | | | | | |
| **Feedback & Past reflection** | | | | | | | | | |
| Tell me about one of your mistakes if there is any. How will you approach your it now? |
| We have all received feedback that was not what we expected to hear or read. Describe a time when you received unexpected negative feedback. |
| Think about a time when you tried a different approach to a work task based on feedback you had received from others. | | | | | | |
| **Behavioral** |  | | | | | | | | |
| **General** | | | | | | | | | |
| Why are you interested in working for Wawanesa? | | | | | | | | | |
| What do you know about Wawanesa? | | |
| Most of us didn’t grow up dreaming of becoming an actuary. We all kind of fall into it in some way or another. Can you tell us about a project, or class, or an experience, that really solidified your interest in the actuarial career path? | | |
| As Wawanesa employees, we try our best to live the company values. Can you pick one and explain why it resonates with you: Service, Fairness, Openness, Collaboration, and Community. | | |
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| |  | | --- | | **Time Management** | | (If applicable) Juggling a job/school and actuarial exam studying can be difficult. What type of time management methods do you utilize to ensure you meet tight dead-lines?(time management skills) | | Give me a recent example of a time when your work schedule was disrupted by unforeseen circumstances. And How did you deal with it | | Tell me about a time when you were faced with conflicting priorities | | **Skillsets (could skip if skills are asked at resume review)** | | What are your greatest skills could add value immediately to Wawanesa? What skills do you hope to develop in the near future? | | Name a skill or theory you learned recently. How are they useful to you today? | | What is your approach to learning new concepts that are challenging? | | | | | | |
| **Presentation** | What is your approach to learning new concepts that are challenging? | | |
| Pick a specific technical concept and describe it to me assuming that I have no background in the topic. |
| We all have made presentations that could have been better.  Tell me about a presentation you made that was less than you had hoped it would be. (Planning/Communication) | | | | |
| •What resources were used to prepare? | | | | |
| •How large was the group? | | | | |
| •What will they do differently next time? | | | | |
| **Work attitude** |  | | | | | | |
| How would you define an actuary and why do you want to become one?  Preference of P&C or Life? |
| Where do you see yourself in 5-7 years? | |
| What would be your ideal work environment / teamwork experience? (Motivational Fit question) | |
| Describe a situation where you needed to adjust your work style/approach to improve your relationship with a co-worker or leader. | |
| What were your favourate/least favorate classes in University | |
| Tell us about a time when you had a conflict wiht colleage / co-worker at school / work. How did you approach the conflict and what steps did you take to resolve it | |
| What do you think are the biggest issues facing the Property and Casualty insurance industry today? Climate change, COVID (WFH, supply chain issues, businesses closing), Data/Technology, Cyber/Network risk, Housing market, IFRS17 | | | | | | | | | |
| new insurance product | | | | | | | | | |
| What is your opinion using Credit Score as a variable for pricing insurance | | | | | | | | | |
| variables impact P&C pricing | | | | | | | | | |
| Innovative products (e.g. wedding?)  GWP and LR | | | | | | | | | |

While worked as an actuarial intern in my previous position, I was asked for working on independent earthquake exposure data review for Reinsurance Department. I had never done data review, and I’m not familiar with reinsurance data structure. After researching the reinsurance data folder and holding various team meeting with reinsurance, I gathered a group of teammates to join the project and set up specific tasks for each function needed. My coworker and I compared reinsurance data and pricing data in Radar. We did an independent data-pull of some key variables in the reinsurance file, and then perform left-join to this data file and pricing data to identify any variable discrepancies. If there is any problems, we will double check this policy holder’s information in source systems, such as Enterprise Data Warehouse and Policy center. Finally, we wrote a report about these problems and suggestions from three aspects, which are completeness, accuracy, and consistency, to document the potential impact to the reinsurance model.