**Why do you want to work at Northwestern Mutual?**

The reason that I want to be an actuary is that I like to solve complex problems using my analytical and technical skills and also do meaningful work. I want to work in the environment that is challenging and supporting. With Northwestern Mutual’s commitment to reflecting and serving the marketplace and believing and value people’s perspective, I believe it’s a perfect place for me to apply my skill. In particular, I am excited about the role of learning more about the products and learn about the modeling and the valuation. I’m excited to utilize my skills to research problems and analyze data, which can further my skill in technical skills. I’m excited to work with Northwestern Mutual and apply my skill to a meaningful cause.

**Why do you want this internship?**

I want this internship because my current goal is to become a professional actuary and I believe that working in Northwestern Mutual will be a good step to take to progress toward my goal. In particular, I am excited about the role in using my technical skills in assisting in implementing actuarial model and data analysis. I believe this internship will not only improve my technical skills but also my soft skill like communication and leadership skills. I’m excited to network and learn more about the actuarial field and the company from the professional actuary at Northwestern Mutual.

**Please Tell us about yourself?**

Hi, my name is Anton Yang, studying mathematics and statistics at the University of Missouri. I have currently passed 3 actuarial exams and am working on passing FAM this November. My goal is to obtain ASA and FSA to become a professional actuary. Over the year, I have built up diverse set of skills and qualities that are a good match for this role. I have a strong technical, critical thinking, and organizational skills. I have a track record of achievement. For example, last semester, our team won the DataFest on Best Use of Statistical Analysis, and this was achieved by the quality of data visualization and detailed presentation on data analysis. Throughout this experience, I have learned how to communicate effectively with other that are from different field from me. Outside of school, I volunteered for our school’s STEM CUB which is the opportunity for college student to engage with elementary student to broaden their mind in the STEM field. I am also a part of Mizzou’s wind ensemble as a clarinet player. These extracurricular activities demonstrates my communication and leadership skills.

I am the type of person who will always be prepared for difficult challenges. I am a fast learner which means you won’t have to spend time constantly supervising me, and I will always bring positive impact to ensure the project completed with quality and before the deadline. If you hire me, I ensure I will be a great role model for the company, make sure I take responsibility for my professional development, and support my co-workers to ensure great things happens in the team.

**What is your proudest achievement?**

I believe that my proudest achievement is winning the competition datafest. I remembered the first time that I participated in this competition, I struggled to find an insightful question and we had struggle in compile a presentation. I felt down that my team did not meet the expectation we were seeking. Therefore, last semester, I participated again, and this time I had a plan and know what we need to work on. We started off proposing an insightful questions that we can analyze with a dataset and our data is finding the best textbook for the math student. We have to factor in the details, the grade, the effectiveness, and the time the students spent. Our question becomes on is there a difference between the time usage between the passing and failing. And we found a textbook that have a lowest time commitment and the highest passing rate. We found a textbook that is easy to understand and allow student to be interested. We also spent some time on preparing on our presentation and communication which we underestimated it last year.

**How do you handle stress?**

Planning is an important tool in handling stress for me. I like to do a to-do list for each day where I plan out what needs to be finished today. Drawing up deatialed plans for like projects, courses, and actuarial eam really helps me to get ahead of the stressful situation. When the stress is high, I like to break the task into a manageable small part, which reduces my stress and also give me more confident that I am able to finish the task. For example, during my second year, I was ambitious so I decided to take 2 actuarial exams back to back during the finals week and also my research conference week. I was stressed at first that I worry that I’m not able to get through it all on time. Of course, I put most of the priority for the actuarial exam, but my plan was to leave time for studying and practice my presentation skill. I passed both of the exams and got good grade.

**Name a time that you had a conflict in the workplace. How did you resolve this conflict?**

**Situation:** "While working as a research assistant, I led the coding and data visualization tasks for our project. We faced a challenging week with multiple high-priority deadlines, and it became clear that we were struggling to complete everything on time. This led to some frustration and concerns about meeting our deadlines."

**Task:** "My task was to resolve the conflict within the team about how to manage our workload and ensure we could complete both the presentation and coding for the research presentation on time."

**Action:** "I suggested that we take a step back and reassess our approach. I proposed that we break down the tasks into smaller, manageable parts and assign specific responsibilities to each team member. We created a detailed plan outlining daily objectives and allocated time for reviewing each other's work to maintain quality. This approach allowed us to work more efficiently and address the most critical tasks first."

**Result:** "By restructuring our approach and clearly dividing tasks, we were able to complete the presentation and finish the coding for our research presentation on schedule. This experience taught me the value of teamwork, clear communication, and how to effectively manage and resolve conflicts to achieve our goals."

**How do you stay organized?**

"I stay organized by using a combination of tools and strategies to manage my tasks effectively. I rely on detailed to-do lists where I prioritize tasks based on deadlines and their importance. For instance, I tackle assignments with nearest deadlines and those that are quick to complete first.

For larger projects, like preparing for an actuarial exam, I create a structured study schedule. I break down the material into manageable sections and set specific goals, such as the number of practice problems to complete each week. I also incorporate practice exams to track my progress and adjust my study plan as needed.

In addition, I allocate dedicated time for each responsibility, including advancing my research project and balancing extracurricular activities. This approach helps me stay on top of my commitments and maintain a clear overview of my priorities.

**Coding Experience**

I have proficiency in Microsoft Excel, where I frequently use functions such as VLOOKUP, INDEX/MATCH, and pivot tables to analyze and visualize complex data sets. For example, I use Adidas data set to create a live sales dashboard. The dashboard display performance on what retailer has the best performance in each month. I also used slicer for user to view the performance in different apect like months, retailers, and is the sale in-store or online.

In term of programming experience, I am the most proficient in using R as both of my research experience utilized R. I had used R for predictive analytics and

but I am also familiar in using Python and SQL. For example, last semester, my team won our school’s datafest competition in best use of statistical analysis. This was achieved by the quality of our data visualization and data analysis we present, and also the quality of our presentation.

My experience with these tools has improved my ability to handle and analyze data effectively. I believe these skills will significantly contribute to the project during the internship.

**Why should we hire you?**

You should hire me for this position because of my passion and proven abilities in organization and time management skills. I pride myself on my time management, coordination, and interpersonal skills.

**Strengths**

I believe my greatest strength is that I am extremely self-motivated. This comes from that fact that I love what I do, so I am always trying to find ways to do my work better. For example, I wante to improve my skills in data analysis and automation to improve my efficiency and the quality of my work. I set out to learn VBA and Excel on my own, aiming to design a live sales dashboard and create a simulation to better manage and anlyze data. I utilized various online resources, including tutorials and instructional videos, to self-study VBA and Excel. I dedicated time each week to practice and apply the concepts I was learning. I then used this knowledge to design a live sales dashboard that provided real-time insights and developed a simulation using VBA to automate repetitive tasks. Through this, my ability to independently learn and apply new skills demonstrated my commitment to continuous improvement and problem-solving.

**Weaknesses**  
One area I’ve been working on improving is public speaking. While I feel comfortable presenting to small groups, speaking in front of large crowds makes me nervous. Therefore, I have been taking steps to improve by volunteer to present at research conference and volunteer to present whenever I got an opportunity. I also make sure to prepare thoroughly before any presentation to boost my confidence.

**How do you handle pressure or stressful situation?**

**Situation:** "I faced a particularly challenging week where I had both an actuarial exam and a research presentation due at the same time. The overlap initially felt quite overwhelming."

**Task:** "My goal was to effectively manage both tasks without compromising the quality of my work or my well-being."

**Action:** "To tackle this, I took a moment to step back and reassess the situation calmly. I started by breaking down each task into smaller, manageable steps. I created a daily schedule that outlined what needed to be completed each day and built in time for regular reviews. This plan helped me stay organized and focused. I also made sure to maintain a positive mindset throughout the process, which helped me stay motivated and reduce stress."

**Result:** "By following this structured approach, I was able to complete both the exam preparation and the presentation successfully. The result was that I not only met all my deadlines but also performed well in both areas. This experience reinforced my ability to handle pressure and taught me the value of staying organized and positive in stressful situations."

**What will your past supervior (or current) say about your job performance?**

My supervisor while I was working as undergraduate research will say I am a detail-oriented. For example, at my undergraduate research job. I consistently met deadlines and often went beyond what was expected to ensure our team’s projects were successful. My supervisor often complimented on my attention to detail and ability to adapt to new challenges. Therefore, I was assigned to fix and debug the code.

I believe that my past supervisor will also say that I am an independent worker. I was often entrusted with projects that required minimal supervision, allowing me to develop solutions and strategies on my own., I took the initiative to give solution on how to optimize the running of the code. I had proposed to use the parallel computing and dimensionality method which led to 30% increase in speed.

**How do you prioritize tasks when everything is a priority?**

**Situation:** "During my last semester, I was balancing several key responsibilities: multiple school assignments, a major research project, and preparation for an actuarial exam. All of these had overlapping deadlines, which made effective time management crucial."

**Task:** "My goal was to efficiently prioritize and manage these tasks to meet all deadlines, excel academically, and also make time for extracurricular activities."

**Action:** "To tackle this, I created a comprehensive to-do list and prioritized tasks based on their deadlines and significance. I started by focusing on assignments with imminent due dates and those that could be completed quickly. For the actuarial exam, which required substantial preparation, I developed a detailed study schedule, breaking down the material into manageable sections and incorporating practice exams to monitor my progress. I also allocated time to steadily advance my research project while ensuring I maintained a balance with my extracurricular commitments."

**Result:** "Through effective organization and prioritization, I not only completed all assignments and the research project on time but also passed three actuarial exams within the year, achieving my goal. This experience reinforced my ability to manage multiple high-priority tasks simultaneously and underscored the value of strategic planning and time management in reaching both academic and professional milestones."

**Three Words that Describe Yourself?**

Three words that describe me are hardworking, analytical, and inquisitive. First, I’m hardworking—I’m deeply passionate about actuarial science and data analysis and consistently strive to expand my knowledge and skills. I taught myself the use of Excel and VBA through online resources. I also completed multiple project using both Excel and VBA. Second, I’m analytical—I enjoy diving into data and am driven by the challenge of solving complex problems through technical analysis. I enjoy predictive modeling as I am always trying to expand my knowledge in statsitical modeling. Lastly, I’m inquisitive—I have a natural curiosity and always seek to learn more and understand the ‘why’ behind different processes and concepts. I believe these qualities will allow me to make a significant contribution to your team.

**Tell me about a time when you failed?**

**Situation:** "During my time as an Undergraduate Researcher, I had my first research presentation for the University. I was quite nervous and, unfortunately, felt unprepared. Despite thinking I knew all the necessary points, I ended up forgetting to cover some key aspects during the presentation."

**Task:** "Recognizing that I had a second presentation scheduled for the following week, I knew I needed to improve both my preparation and delivery to ensure a better performance."

**Action:** "To address this, I dedicated the entire week to intensive practice. I started by writing out a detailed script and then practiced presenting while gradually reducing my reliance on it. I also sought feedback from colleagues, incorporating their suggestions to refine my presentation. This iterative process of rehearsing and adjusting helped me become more confident and effective."

**Result:** "When I delivered my second presentation, I felt much more at ease and performed significantly better. This experience taught me valuable lessons in overcoming public speaking challenges. I learned that thorough preparation and hard work are crucial for success in any situation. It also helped me develop a more resilient approach to handling similar situations in the future."

**When is the time you have difficulty with your coworker?**

During my research at the University of North Carolina Charlotte, I encountered a challenge with my research partner concerning our project tasks. Our technical skills were not aligned, which made it difficult to collaborate effectively. To address this issue, I took the initiative to help him improve his technical skills and better understand the tasks at hand.I was able to improve his technical skill and catch him up on our goal while also meeting the deadlines This experience taught me the importance of clear communication and the value of supporting team members to ensure we achieve our goals together.

**Where do you see yourself in 5 years?**

In 5 years, I see myself becoming a professional actuary obtaining both ASA and FSA. I see myself to be a leader in the actuarial field and contribute to pricing and advises clients on investment and insurance. I see myself being an actuary at a large insurance company and aim to make a significant impact in the field by providing valuable insights and guidance on investment and insurance matters. To achieve this, I will work hard on passing actuarial exams and continue improving my technical skills. I believe that StateFarm is a perfect opportunity to help me support this goal.

**Describe a time you exceeded expectations on a project or job task.**

**Situation:** As an undergraduate researcher, I was tasked with developing predictive models for a project. Our goal was to create a model with high accuracy to analyze large datasets efficiently.

**Task:** My primary responsibility was to code and complete the predictive model simulation. The initial expectation was to achieve a high accuracy rate, but there were no specific requirements for optimizing the model’s running time.

**Action:** After successfully achieving about 90% accuracy with the initial model, I proposed and implemented dimensionality reduction techniques to improve performance. I utilized Principal Component Analysis (PCA) and Random Forest Importance Plot to reduce the data dimensions, which helped to decrease the code’s running time.

**Result:** This reduced the running time by 30%, allowing us to process large datasets more efficiently. This exceeded my mentor’s expectations, as the initial goal was just to complete the coding. My mentor was impressed with the improved performance and praised me for going beyond and beyond for this project.

**Tell me about a time you had to explain a complex technical concept to a non-technical audience.**

**Situation:** During my school's annual DataFest competition, I was part of a diverse team consisting of members from biology, economics, computer science, and statistics. We had only 24 hours to analyze a raw dataset and prepare a presentation and report.

**Task:** My specific task was to teach my team members, who had varying levels of familiarity with programming, how to use R for our data analysis. The challenge was to explain technical concepts in a way that everyone could understand, given our diverse backgrounds.

**Action:** Initially, I faced some difficulty in breaking down the complexities of R into simple terms. However, I adapted my teaching approach by using analogies and step-by-step instructions. I focused on demonstrating basic functions and their applications in data analysis. To ensure everyone could contribute effectively, I assigned tasks based on each member's strengths and interests.

**Result:** By the end of the competition, we successfully implemented data visualizations and proposed insightful questions. Our clear explanations and effective teamwork led us to secure 2nd place in the competition. I was proud of how we managed to bridge our different expertise and deliver a compelling presentation.

**Question**

What is the environment like working at Northwestern Mutual?

What is the first project like working at Northwestern Mutual?