

EDITORS' NOTE

ABOUT THE EDITORS:

Stephanie Yang



Major: Actuarial Science **Year**: Sophomore

Stephanie is the Publicity Chair and is from Elmhurst, IL. In her free time, she enjoys card games and hammocking.

Rose Gruss



Major: Actuarial Science **Year**: Freshman

Rose is a part of the Publicity Committee and is from Park Ridge, IL. In their free time, they enjoy writing and playing DnD.

Naomi Logan



Major: Statistics Year: Junior

Naomi is the Vice President Internal and is from River Forest, IL. In her free time, she enjoys going on walks and painting.

Isaac Zumpano



Major: Actuarial Science **Year**: Sophomore

Isaac is a part of the Publicity Committee and is from Orland Hills, IL. In his free time he enjoys cooking and exercising.



Dear Alumni,

We are happy to bring you the latest edition of the Actuarial Science Club's Alumni Newsletter! In this issue, you'll find updates on spring events and insightful interviews with students and a founder of ASC.

Throughout the semester, our members found success in various case competitions and IRisk Lab projects. We were excited to celebrate everyone's accomplishments during our Spring Banquet which was held in-person.

This newsletter celebrates another outstanding year for ASC, and we are excited for more to come!

Go Illini!

Sincerely, The Publicity Committee

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ASC'S BEGINNING

If you are a member of the Actuarial Science Club, Steve Eisenstein is no ordinary University of Illinois graduate; he was one of the founders of the ASC. Eisenstein graduated with a B.S. in Actuarial Science in 1986 and has been practicing as an actuary in the pension space for 36 years. He currently works as a Director Actuarial at KPMG.

While the club was not his original idea, he was a part of a group of about eight students who thought having an Actuarial Science Club would be beneficial not only as a networking opportunity for students within the major, but also as an educational platform to learn about the career.

According to Eisenstein, the club was formed in 1984 with about 30 people, consisting of actuarial science students and others who were interested in the career. Initially, there was no executive board or formal structure. As the following cohorts joined the club, it became more formal, and more infrastructure was put in place. Eisenstein states, "Each successive group built it up to where it is today. We were on the ground floor; it was informal, but we tried to do good things for everybody. Those who followed us were really the ones who grew it".

I had the pleasure of talking with Eisenstein and learning about his experience at UIUC and forming the club. Here are some pieces from the interview:

Stephanie: Other than the professional events, did you have any social events?

Steve: When someone would come in to speak, we would try to get together, have an informal dinner afterwards, and invite the speaker to join us. We'd go from a formal presentation to a less formal environment. Additionally, a lot of us would gather in the union between classes, and that was where we had most of our social activity.

Stephanie: What was the biggest challenge about running the club?

Steve: Reaching out and recruiting speakers was probably one of the bigger challenges. And making sure that communication was good and people were aware of events. If you go back to 1984–1986, there were no cell phones. We were just starting to work on personal computers. Everything was done by word of mouth or announced in class to let people know what was going on. We didn't have the technology to spread the word. At the same time, that gave us a leg up because our communication was more personal.

Stephanie: What is something that you wish you were able to do with the club?

Steve: We probably could have worked a little more closely with our professors. Although I'm not sure that is something that I would have wanted to do. Doing it on our own was empowering for the people involved, and we learned other skills that way. When I look back on it, I feel that, for what we started and the fact that it's still going on, I wouldn't necessarily change anything. I think we did it the right way.

Stephanie: What is your advice for future executive board members and/or students?

Steve: For executive board members, keep in front of you the purpose of what you are trying to accomplish. Recognize that there will be times you will be asked to do things that may not be in your own personal best interest but might be in the best interest of others. Have that as a guiding light for how you do things. You may have your own views, which is wonderful, but it is really about helping others and not just yourself. For students, recognize the resources available to you. For a younger student, maybe a freshman or sophomore, there are older students that have knowledge and experiences to share. Ask questions, be inquisitive, learn, and get a good sense of what you are doing. The actuarial career is a wonderful one.

Stephanie: Do you have any final thoughts you'd like to add?

Steve: I still bleed orange and blue. Enjoy your experience on campus. Enjoy the other activities you do and enjoy being in Urbana-Champaign. As your life moves forward, your memories of what you experienced on campus will become stronger, and you'll appreciate them more than when you were living them. With the size of the program and the size of the university, you'll continue to run into people from U of I all over the country. And that's a cool thing—an immediate connection.



SPRING EVENTS

3/6 - Oliver Wyman Field Trip

3/8 - Coach K Fireside Chat

3/23 - International Alumni

Panel & Kung Fu Tea Social

3/29 - Bar Crawl

4/5 - Pinnacle Field Trip &

April Monthly Meeting

1/24 - ASC Spring Kickoff

2/1 - Art of Networking Workshop

2/2 - SOA President Fireside Chat

2/8 - February Monthly Meeting

2/10 - Mia Za's Club Dinner

2/15 - ACP Kickoff

2/18 - Apartment Bash

2/22 - CAS Student Meetup

2/23 - Actuarial Scholarships

Workshop

2/28 - ASC Exec Info Session



4/6 - Spring Alumni Panel

4/13 - Spring Banquet

4/14 & 4/15 - Drake Symposium

4/18 - Professional/Business

Writing Workshop

4/20 - Semi-Formal

4/24 - Cigna Dinner

4/25 - Diversity and Inclusion

Panel

4/26 - Student/Professor

Lunch & Barn Dance

4/28 - Study Session

SPRING BANQUET

On April 13th, 2023, the Actuarial Science Club hosted our 14th annual Spring Banquet! In continuing this long-standing tradition, the Actuarial Science Club and Program celebrated the past year's successes and honored the graduating class at the Alice Campbell Alumni Center.

Of the 74 attendees, 47 guests were students, and 27 were alumni, company representatives, and faculty. There were representatives from Aon, Allstate, Aetna/CVS, At-Bay, Deloitte, Milliman, Northwestern Mutual, Oliver Wyman, and Pinnacle! We started the night with a welcome from this year's ASC President, Daniel Polites. Our keynote speaker was Dan Stier, CFA, ASA, the Managing Director of Strategic Investment Initiatives at Northwestern Mutual. We then heard from the Actuarial Science Program Director, Runhuan Feng, as he spoke about the department's overall growth along with recent endeavors such as the University-Earned Credit program. The university's accreditation actuary and professor, Claudia Freiji, then provided more insight into the successful first year of the UEC program.

The club honored this year's Alumni of the Year, Zekai Li, who serves as a director in Milliman's Financial Risk Management department and established the program's first scholarship to be dedicated specifically to international students. He gave a speech on his gratitude for this award and how the UIUC Actuarial Program has set him up for success. Next, there was a recognition of all the other scholarship recipients, professors, TAs, and graders. The event continued with a "passing of the baton" between the current and incoming board members, as each individual in the current role provided advice in the form of a letter to their successor. Finally, our incoming president, Anika Chakraborti, ended the night with a look into the upcoming year.

Overall, we are grateful to all those who could attend and help make the event such a success. We hope to see you in attendance at the 2024 Spring Banquet!











UEC AND ASRM COURSE UPDATES

The Actuarial Science course offerings at the University of Illinois have undergone a variety of changes over the past few years. A major change being the addition of the University-Earned Credit (UEC) program in the Fall 2022 semester which allows students to receive SOA credit for specific exams by receiving the required score in the corresponding UEC course. While the Fall 2023 semester will not introduce any major changes as big as UEC, the Actuarial Science Department is excited to announce the addition of four new Actuarial Science courses which are listed below.

ASRM 441: Statistics for Risk Modeling I (UEC SRM)

ASRM 442: Statistics for Risk Modeling II (UEC SRM)

ASRM 462: Advanced Loss Models, Credibility, and Ratemaking (UEC ASTAM)

ASRM 454: Generalized Linear Models

In addition, UEC courses have become 4 credit hours for undergraduates and graduate students, except for ASRM 210 and 472, which will still be 3 credit hours for undergraduates.

The UEC course offerings are listed below:

| UEC Courses | |
|---|---|
| ASRM 210*: Theory of Interest -> Exam FM | ASRM 462* or ASRM 561*: Advanced Loss Models, Credibility, and Ratemaking -> Exam ASTAM |
| ASRM 471*: Life Contingencies I -> Exam FAM_L | ASRM 441*: Statistics for Risk Modeling I -> Part one of Exam SRM |
| ASRM 472 or ASRM 575: Life Contingencies II -> Exam ALTAM | ASRM 442: Statistics for Risk Modeling II -> Part two of Exam SRM |
| ASRM 461*: Loss Models -> Exam FAM_S | *offered Fall 2023 |

Beyond the regular undergraduate classes, the following advanced topic courses will be offered:

| Advanced Topics | |
|---|--|
| ASRM 499: Deep Learning for Finance & Insurance | |
| ASRM 499: Financial and Insurance Technology | |

iRisk Lab

Project Descriptions:

A Study on FinTech Regulatory Sandbox

Regulatory sandbox is a framework in which businesses test out innovative business models, products, services without subjecting to the full regulations for the activities. The UK Financial Conduct Authority, the US Consumer Financial Protection Bureau are among the first regulatory agencies to introduce the regulatory sandbox and to propagate the concept around the world. This research is to understand the regulatory framework and compare sandbox programs around the world.

Spatiotemporal Modeling on Foot Traffic Data to Unlock Auto Insurance Geo-risks

Foot traffic data is captured by various sources, such as smartphone APP, telematics devices in the vehicle, which can help insurance monitor policy holders' behavior. It is beneficial for insurance companies to price the risk accurately and accelerate the underwriting process. On the other hand, policyholders are given incentives for good driving behavior. There are various state-of-art techniques to extract useful information from the high-dimensional foot traffic data, including spatial and temporal analysis, and geospatial analysis.

In this project, we intend to create spatial and temporal models to identify the policyholders' driving behavior in certain CBG (Census Block Group) or city/county levels and provide guidance for auto insurance geo-risk. Currently, we are investigating the association between accident and foot traffic based on the 2018-2019 vehicle accident report from Indiana state.

Insurance Privacy Preservation in Federated Learning Collaboration

Due to privacy and data confidentiality concerns, today's insurance industry is rife with the protectionism of proprietary data, which has become a major roadblock that prevents the free flow of data and collaborations between data scientists and analysts. The inaccessibility of data across the boundaries of insurance firms or even business divisions within a corporation makes it difficult to develop comparative analysis and to uncover business insights that can only be learned from the aggregation of data across the board.

Federated learning has been proposed in recent years as a privacy-preserving solution to collaborative machine learning tasks, and it allows data owners to collectively build a model without sharing sensitive data with each other or to a centralized server. This technique has seen success in a variety of scenarios, such as healthcare, content recommendation, and smart transportation, and therefore, it has the potential to make an impact on addressing the data concerns in the insurance industry. However, the application of Federated Learning in the insurance industry is further complicated by the demand of privacy of feature names, private identity information in structured data. Hence, in this project, we will explore privacy preservation methods targeting the use-cases of insurance industry built on top of the framework of Federated Learning (e.g., feature alignment, entity resolution, differential privacy, etc.) so that we can build a specialized real-world data collaboration platform for insurance industry.

Representation Learning for Insurance Products

The insurance industry has long known the importance of data, and the success of its business heavily relies on data collection and analysis. With the fast growth in computing power and the development of machine learning techniques, more and more variables/features are used in predictive analysis in various aspects of insurance, such as rate making, loss reserving, and risk management. While most of the numerical or categorical variables can be easily thrown into a machine learning model, the unstructured text data remain largely under-utilized.

One of the popular ways to use text data is feature engineering, which often involves manually creating algorithms to extract information from the text, such as the word count and the sentiment analysis. Although this approach provides a "measurement" for the entire text that can be easily interpreted, discovering new features usually requires domain knowledge and quite time consuming. Recently, many researchers

have started using Natural Language Processing (NLP) to facilitate textual analysis. While many of the deep learning models succeed in improving prediction accuracy for supervised learning tasks, they often provide little tractability and interpretability, which are of importance in decision making.

In this project, we will explore the representation learning techniques for understanding unstructured text data, aiming to provide a low-dimensional and interpretable representation of texts. In the previous semester, we have reviewed literatures on both supervised and unsupervised learning tasks, and implemented several novel algorithms with long short-term memory (LSTM) neural networks and

bidirectional encoder representations from transformers (BERT). For the current semester, we will continue exploring the literature, and modify the existing algorithms with an emphasis on the interpretability of the model.

CAREER FEATURE

Full-Time Positions

KJ Choy Blue Cross Blue Shield Jonathan Garcia
Deloitte

Luke JanikowskiOliver Wyman

John Tang Deloitte

Summer Internships

Grad Students:

Rodney
Taruvinga

Paramveer Singh Dhillon

Grey Van de Graaf Blue Cross Blue Shield Katharine Robbins Empower

Juniors:

Ted Conneen
PricewaterhouseCoppers

Yen-Hsun LinReinsurance Group of America

Daniel Polites
State Farm

Anna Schulz Oliver Wyman Hyung Chang Yoo Munich RE

Sophomores:

Eshan Choudhury Amynta Group Nicole George American Family Insurance

Tyler Hecht American Family Insurance Emily Hylbert WTW

Pooja Khatri Zurich North America Varsha Murali Oliver Wyman **Zach Sabres**Gallagher

Aleena Ukkan Milliman **Jason Wiener** Zurich North America Stephanie Yang Milliman Isaac Zumpano Lauterbach and Amen

Freshmen:

Erica John Lincoln Financial Group Parth Singh Country Financial

May Graduates

Savi Alwis Mico Angeles Jordan Brown Klaidas Buinickas **Virgil Chen Yilin Chen** Min-Hsueh Chiang **KJ Choy Jonathan Garcia Rosin Gu David Hansen Colin Heffernan Yimei Jiang Chae Hoon Kim Jooseon Lee Logan Mazur Luke Miller Ally Muhammad Ispandi Marty Nield**

Shannon Ooi **Xander Parrilla Jaylen Patel** Maya Ramahi **Dan Ruan Keren Ryant Stuart Seputro Sneha Shrestha** Salma Suleiman **John Tang** Patrick Tarunadjaja Yuxuan Too **Ava Wegman** Hansen Wibisono Livia Widjaja **Aaron Wijaya Grace Xie** Jun Ye





Graduate Spotlight: Logan Mazur

What is your favorite ASC memory?

ASC specific? I don't have as much of a time frame because half of my time here was during COVID and everything was online. But thinking back to my freshman year, there was an event where we had Coach K come by to talk about Coaching Actuaries and how to succeed on your actuarial exams and in the actuarial world. It was a really insightful speech for figuring out how to succeed in the actuarial world beyond college, even during college. Coaching Actuaries and other external resources are good ways to help pick you up. At the end of the speech, the memory that always stands out to me is how someone just went down to Coach K and asked if he could hug him because of how much Coaching Actuaries helped him out. It was such a happy and amusing moment at the same time, and I think that's why it stands out to me, just because of how many emotions it had behind it.

What do you wish you could have done differently if you could change something?

So much. For one, I wish I'd talked to more people. I might be overstating this a lot, but the people were the best part about U of I. I wish I'd gotten to know more people so I could be comfortable calling them friends rather than just acquaintances. Going to more events to meet more people, joining more clubs to meet more people, and talking to people in class because then not only are you making friends, but you have people that can help you in those classes. It all boils down to wishing I was more social. Sometimes it can be intimidating to talk to people you don't know. If I could redo one thing, it would be to not be so intimidated when talking to strangers; just go for it.

What will you miss most about U of I?

The people. Absolutely the people. I met so many fun people, and some of them I'll be able to keep up with, but others are going to be halfway across the country, and I probably won't ever see them again, so that's what I'm going to miss most.

Anything else to add?

Keep up with your classes. Don't be afraid to spend money on external resources like Coaching Actuaries, because they're very helpful. I would recommend taking advantage of them. Have fun. Socialize.

Interview: ASC President Daniel Polites



Q: What was your favorite memory of ASC from this past year?

My number one memory this year was the company presentations, which for me are a great social and professional opportunity because you are getting exposed to everyone at ASC over a long period of time. And it was a really good time spending time with club members and getting to know them. My second favorite memory was the bar crawl first semester. Love the bar crawls as a chance to meet new people and get close to them. I also loved our board trip; we popped up to Michigan for a weekend.

Q: What changes do you want to see next year?

I want to see a completely balanced representation of every grade in ASC. Over the past few years, we've had triangles, with more upperclassmen than underclassmen, and inverted triangles, with more underclassmen than upperclassmen. I think COVID has had a lot to play in that, and it would be great if our membership base looked more like a rectangle and if we had equal parts of every grade at all of our social and recruiting events. I think that'd be super healthy for the underclassmen and really fun for the upperclassmen.

Q: What are your goals for the club by the end of the year?

By the end of the year, we want the remaining events to run well, but what I really want to see is for us to get off to a really quick start next year. So, the goal for the rest of this year is to do everything that we can to prepare for that, so next year is great!



By: Isaac Zumpano



The Fall Alumni Newsletter featured an article about the promise of the Illini Basketball team for the 2022–2023 season. Although the team had a large amount of upside, they lacked the consistency necessary to see prolonged success. Fans watched from the edge of their seats for the rest of the season as the Illini faced tough competition in the Big Ten and NCAA tournaments. And as the season progressed, our basketball team proved that it is able to consistently put its fans on an emotional rollercoaster t

hat ended in utter disappointment with another first-round loss to Arkansas.

Rather than continue to woe in sadness over the losses our basketball team has incurred, our time will be better spent on the promising future of our sports teams (I deeply apologize if you are an avid Illini tennis fan, but the extent of my college sports knowledge does not go past football and basketball).

For football, the goal is to build off of the somewhat off-character, impressive season that was led by Tommy Devito, Chase Brown, and an electric defense that took the nation by storm. Devito, Brown, and many others have unfortunately graduated or left Champaign for various reasons, and we are left to wonder what this team will look like next year. To start, our prospective starter seems to be former Ole Miss 4-star recruit Luke Altmyer, who is promising but has much to prove. And as for the rest of the team, many saw limited playing time, and there are few returning players. The future of this team depends on how many of these new starters perform.

As for basketball, next season seems up in the air, as players such as Skyy Clark, Jaden Epps, Terrence Shannon Jr., Matthew Mayer, and RJ Melendez will not be returning. So, the fate of the team

rests on the returning players, mostly bench players from last season.

Overall, the Illini have a lot to look forward to in the 2023–2024 year. Fans can expect exciting and competitive performances across a variety of sports. The future is looking bright for the Illini, and fans can't wait to see what's in store for the upcoming season.





Image credit: UNIVERSITY OF ILLINOIS / FRED

Canopy Club Feature

The Canopy Club is a popular venue on campus for students to watch live music, comedy, and other events.

Spring 2023 Events

Every Monday - Open Mic Comedy
Every Tuesday - Hip Hop Open Mic
4/6/23 - Maruda Rage Room
4/11/23 - Oddly Eazy
4/12/23 - Vintage Pistol & MK Ultra
4/14/23 - Latin Night Easter
4/15/23 - Now! That's What I Call The 90's Party

4/18/23 - Manthom Phenace

4/20/23 - Scooby Doo!'s 420 House Party

4/21/23 - Astrology Vs. - Aries vs. Taurus 4/22/23 - Micro-Wrestling All*Stars

4/23/23 - National Diversity Month Drag Show 4/29/23 - Cypher Saturdays

5/6/23 - Loudernow Emo & Pop-Punk Tribute 5/12/23 - Astrology Vs. - Taurus vs. Gemini



What is Gamma lota Sigma (GIS)?

GIS is an insurance and risk management fraternity where students learn about careers in insurance and risk management. Chartered in 2020, the goal of the Gamma Lambda chapter at UIUC is to provide a platform for students interested in risk management and insurance to gain industry knowledge.

Their Events:

The business fraternity organizes various events throughout the year, including guest lectures, social gatherings, and community service projects. Recently, the club hosted a chief risk officer from a bank who discussed careers in risk management and banking. Other events include an alumni panel with 5 recent graduates and an industry presentation with the head of analytics at a bank. The club also enjoys social events such as hiking on the weekends.

The Gamma Iota Sigma Regional Conference:

The Gamma Lambda chapter was excited to send 3 members to this year's GIS Regional Conference in Indianapolis. It was a 2 day event with over 50 Schools and about 40 companies in attendance. The conference consisted of guest speakers, presentations, and a career fair. Presentation topics included insurance from a meteorological perspective and the insurance of nonprofits. The students also got to tour Lucas Oil Stadium.

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SPECIAL THANKS TO:

Claudia Freiji Steve Eisenstein

Emily Hylbert Stefanie Klajbor-Goderich

Logan Mazur Daniel Polites

Frank Quan Andy Brown

The Actuarial Alumni Community



Top Row (left to right): Anika Chakraborti, Stephanie Yang, Kaia Hsu, Pooja Khatri, Emily Hylbert, Ethan Lin Bottom Row (left to right): Anna Schulz, Ted Conneen, Luke Janikowski, Daniel Polites, Naomi Logan, Sam Jourdan