

Actuarial Science Club

Alumni Newsletter

Fall 2023



ALMA MATER

TO THY HAPPY CHILDREN
OF THE FUTURE
THOSE OF THE PAST
SEND GREETINGS



Image Credit: Fred Zwicky / University of Illinois Urbana-Champaign

Editors' Note

Dear Alumni,

We are thrilled to bring you the Fall 2023 edition of the Alumni Newsletter. In this issue you will be able to find updates on fall recruitment, the iRisk Lab, faculty members, and campus features.

While everything with regards to being on campus is back to a new sense of normal, we are looking forward to seeing what the spring semester will bring, and we hope you enjoy this edition of our newsletter.

Go Illini!

Sincerely,

The Publicity Committee



About the Editors

Nicole George



Nicole is a Junior majoring in Actuarial Science and she is ASC's Publicity Director.

Toshani Bisht



Toshani is a Freshman majoring in Actuarial Science and she is a member of the Publicity Committee

Jessica Cudzich



Jessica is a Freshman majoring in Actuarial Science and she is a member of the Publicity Committee

Jennifer Ottych



Jennifer is a Freshman majoring in Actuarial Science and she is a member of the Publicity Committee

Pooja Khatri



Pooja is a Senior majoring in Actuarial Science & Economics and she is ASC's Vice President-Internal

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FALL RECRUITMENT

COMPANY PRESENTATIONS

This year, we hosted over 20 company presentations! Students had a chance to learn from and network with company representatives from companies across the industry. We had an average of 60 students at each presentation this year, with 4/5ths of the presentations held on-campus



August

- Zurich
- Pinnacle
- State Farm
- Oliver Wyman
- Deloitte
- Martello

September

- CVS/Aetna
- Principal
- WTW
- Cigna
- CNA
- RGA
- Milliman
- Mutual of Omaha
- UPMC
- Geico
- Blue Cross Blue Shield
- Nationwide
- Aon

October

- Wakely
- Ryan Speciality Group

FALL RECRUITMENT

MEET-THE-FIRMS

“Great event! I think there were a ton of interested students and felt like I was talking to someone new the entire time.”

With the return of in-person networking and recruiting, ASC was able to successfully host Meet the Firms and interview week in-person this fall. Held at the Illini Union Ballroom, this year's event featured a remarkable lineup of 30 prominent companies, drawing in over 100 students. From freshmen to graduate students, attendees were able to engage with recruiters, learning more about the company culture and job opportunities.

Given that the return to in-person recruiting is still new to many students, ASC hosted a variety of workshops ranging from resume tips to elevator pitches, as well as a lineup of company presentations to ensure attendees were prepared for the event. Students entered Meet the Firms feeling well-equipped and confident. Overall, the Career Fair received positive feedback from students and company representatives, ensuring that the event will continue to take place for years to come.

“It's a valuable recruitment event for our company and the students that attend.”



FALL RECRUITMENT

MEET-THE-FIRMS 2023



If your company is interested in participating in future Meet the Firms, please contact us at mtf@asc-illinois.com with any questions.

Fall Events 2023

8/20 New Student Picnic

8/22 Fall Kickoff

8/25 Apartment Bash

9/1 Board Game Night

9/5 Resume Workshop

9/8 Mia Za's Club Dinner

9/14 Elevator Pitch

Workshop

9/14 CPT/OPT Session

9/15 Quad Picnic

9/18 Mock Meet the Firms



9/19 Interview Workshop

9/21 Meet the Firms

9/29 Apartment Crawl

10/10 Oliver Wyman Field
Trip

10/11 Committee & AMP
Kickoff

10/12 Coaching Actuaries
Workshop

10/17 Barn Dance

11/1 Course Selection
Workshop

11/7 Exam Study Tips Panel

11/9 Importance of
Insurance Workshop



ALUMNI MENTORSHIP PROGRAM

What is the Alumni Mentorship Program?

The Alumni Mentorship Program provides opportunities for students in order to gain a true understanding of the actuarial field. Students are specially paired with mentors based on both interests and goals.

"I have been a proud participant in the AMP since 2020. I've found it to be a wonderful way of helping give back to the UIUC Actuarial Science program, which helped lay the groundwork for success in my career. I have enjoyed getting to know each of my mentees, and hope that the perspectives I have shared from my time at campus and my insurance and consulting work experience have been valuable as they prepare to enter the profession."

-Jonathan Ankney

FROM A MENTOR'S PERSPECTIVE:

"My experience as a mentee in the Alumni Mentorship Program has been incredibly insightful and engaging. Throughout the course of my meetings, I have gained professional and personal development in the actuarial science field through resume reviews, interview tips, and recruiting advice. My mentor walked me through her journey from UIUC to corporate life, and she recommended that I utilize the potential of leadership positions within RSOs. Also, my mentor relayed the importance of soft skills and how communication is the key to success within internships and companies themselves. At the end of the day, following your passions, advocating for yourself, and soaking in all UIUC has to offer will give you the network and outcomes you desire."

-Lyndsey Bajgrowicz

FROM A MENTEE'S PERSPECTIVE:

If interested in joining this program, contact Anna Schulz at outreach@asc-illinois.com



Illinois Risk Lab

Officially established in Fall 2018, the Illinois Risk Lab (iRisk Lab), in the Department of Mathematics at the University of Illinois at Urbana-Champaign, grew out of the Research Program in Risk and Actuarial Science, which was sponsored by the Society of Actuaries from 2014 to 2017. The iRisk Lab currently serves as an industry academic collaboration hub, facilitates the integration of discovery based learning experience for students, and showcases state-of-the-art research in all areas of Risk Analysis and Advanced Predictive Analytics. Opportunities include research projects, student consulting, research seminars and the Risk Analytics Symposium. Faculty, industrial partners, and students collaborate to address business-oriented research problems. Throughout the semester, students will gain real-life experience in innovative research, collaboration, and presentation skills. Besides, our industry partners will be able to access the latest progress and new perspectives from our collaborative research, and identify potential future employees from our student researchers.

Interested in University and Industry Collaboration?

Please reach out to: irisklab.uiuc@gmail.com



Fall iRisk Lab Projects

Decentralized Insurance Market Analysis

Leveraging the blockchain technology, decentralized insurance has recently gained significant attention due to its advantages in energy efficiency, transparency, and scalability. In contrast to traditional insurance where the insurance company serves as the central entity, decentralized insurance utilizes the Proof-of-Stake (PoS) consensus for risk and claim assessment purposes. In this project, we explored the current decentralized insurance market, with an emphasis on the pricing and claim assessment mechanisms employed by the leading firms in the industry. The utilization of blockchain technology has facilitated the availability of public data for decentralized insurance platforms and cryptocurrency transactions, which provides us with unique research opportunities. By analyzing transaction data, we investigated the behavioral patterns of these decentralized insurers, as well as the dynamics of demand and supply within the network.

Data Discovery and Consolidation

As data-driven decision-making becomes increasingly important in all fields, it is crucial to have a comprehensive understanding of the datasets at our disposal to facilitate research, analysis, and innovation across disciplines. The primary objective of this project was to conduct an extensive data discovery process within UIUC to identify and catalog various datasets that exist across different units, research centers, and government entities. This required dedicated personnel, access to relevant systems, performing data visualization, and the creation of a relational database. By consolidating these datasets into a centralized repository, we aim to provide researchers, students, and faculty members with a unified platform to access a wide range of data for their projects and initiatives.

Fall iRisk Lab Projects



Modeling Dependence of Cyber Risks and Its Actuarial Applications

Cyber risks have been posing increasing concerns to both public and private sectors. While cyber insurance has naturally emerged as a market solution to mitigate cyber risk in the recent decade, its development is still in an early stage.

The underdevelopment of the cyber insurance market is attributable to the complex yet unknown nature of cyber risks. One major challenge is the potential dependence among cyber risks. Due to the cyber nature, the dependence could widely exist among a large scale of cyber risks regardless of locations. This poses substantial insolvency risk to insurance providers and thus discourages their participation. Even worse, there is not yet sufficient historical data to uncover the dependence structure.

In this project, we aimed to tackle this challenge from a physical simulation approach. That is, to employ cyber engineering techniques to generate reliable data and identify the root cause of dependence, and thus better capture the dependence characteristics. In a later stage, we utilized the data and dependence characteristics to develop interactive actuarial models for pricing and risk management, with the aim to promote healthy development of the cyber insurance market and enhance the overall social welfare for all stake holders.

History and State of Decentralized Autonomous Organizations (DAOs)

A DAO is an innovative organization structure that has emerged with blockchain technology. It allows like-minded individuals from around the world to collaborate with each other without having to rely on the leadership of a central authority. In this project, we studied the history and the evolution of DAOs in blockchain ecosystems and beyond.

Spring Symposium

The Actuarial Science Club at UIUC will be hosting its annual spring symposium! This event will bring insurance experts and business leaders from many fields together to highlight emerging trends within risk management and insurance.

This year's theme - Innovation in Insurance - will give attendees the opportunity to learn about changing regulation in health insurance, telematics, cyber insurance, and aftereffects of COVID among other topics that are relevant within insurance today.



Interview: Tolulope Fadina

Tolulope Fadina is an Assistant Professor in Actuarial and Financial Mathematics at the University of Illinois at Urbana Champaign in the Department of Mathematics, Statistics and Actuarial Science. Her research interests include model uncertainty and contagion, financial derivatives, risk measures, and recently machine learning. She joined UIUC during the September of 2023 and prior to that she worked in the United Kingdom.



Q: What courses are you currently teaching or planning to teach in the coming semesters?

F: This fall I'm teaching ASRM 510 which is Financial Mathematics. In the spring, I will be teaching Quantitative Risk Management and for the 2024-2025 school year I hope to be teaching Financial Math again as well as Quantitative Risk Management.

Q: What made you choose UIUC as a school to teach at?

F: Moving from the UK to the U of I was definitely a big move. The reputation of U of I precedes the university. And although the Actuarial Science group here is rather small, it is very well connected and has great people. So when I came for the interview in January, I did interview in quite many places, but I told myself that if U of I made me an offer then I was going to accept. This is because of the people here, they are so nice! In terms of research too, the research here compliments my research. I am more on the financial mathematics and management side but the research done here is something a bit different from what I am doing, for example cyber risk. I am looking for a way to expand my research and try to collaborate with people that are not doing exactly what I am doing. So overall, I see room for goals, networking, the university's reputation, the culture as well as the iRisk Lab.

Q: Speaking of research, what types of topics have you been working on and how do you incorporate that into your teaching curriculum?

F: My research is mainly on model uncertainty and generalization. Model uncertainty basically means that we are trying to develop models that capture uncertainty. My research looks at financial models like financial models for pricing options, and try to consider what happens if we introduce uncertainty. Black-Scholes model for example, is one of the simplest and well-used models for the stock price in financial markets where we always assume that we know the distribution of the stock price, that we know the characteristics as one way to signify distribution. However, we do not know the probability distribution. So in the research I am working on, I say “we do not know the distribution, but we have an idea of what the distribution could be”. Then we use that knowledge to come up with the actual price of options in the market. I am also interested in looking at what we can say about insurance models when we introduce uncertainty like COVID, things like risk management and risk measures, and what happens when you assume that you don’t have enough information and you want to measure risk. So if I want to model something or understand a model but don’t have enough information, but I still want to be able to say something about that model; that’s when I try to introduce model uncertainty. In my class, I try to explain to my students how one can incorporate model uncertainty in Black-Scholes models, so we didn’t go deep into it, but I just try to inform them that “this is a classic Black-Scholes model and classic pricing model but one can still incorporate lack of information in this kind of model and this is how to do that”.

Q: We saw on your website that you have traveled a lot and you have done a lot of service work, could you tell us a little bit more about that?

F: Yeah, truly, I have moved a lot. I love traveling so I think that is one of the reasons why it was so easy for me. In terms of community work, when I was at Essex, I was in two different committees- one was involved with the university and trying to make life much easier for the faculty, especially female faculty. One of the things we were pushing there was changing room for kids in our department. So if you bring a baby on campus and you want to change their diaper, there was no changing room. We thought we needed at least one changing room in the department. This would also be useful for students who have kids as well and not just the faculty members. Another committee I was on was the decolonization of the curriculum. I stayed engaged with the students, especially international students. I realized that some of them did not really feel connected in the lecture room because of the examples that the faculty members gave. Within that committee we would try to inform our colleagues to make sure that the examples that they give in class are diverse and examples that every student can relate to and understand. So basically, the idea of the de-colonizing of the curriculum is to make sure to try and consider every student in your class weather it be local students or international students.

Faculty Profile



Tim Cardinal
Instructor



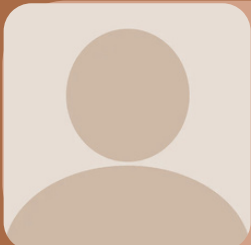
Claudia Freiji
Instructor



Stefanie Klajbor-Goderich
Academic Advisor



Xiaochen Jing
Assistant Professor



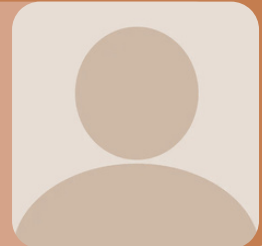
Peixin Liu
Research Assistant
Professor



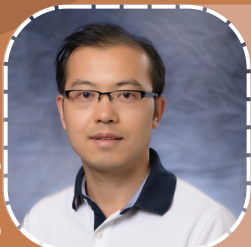
Frank Quan
Assistant Professor



Eric Icaza
Instructor



Richard Sowers
Instructor




Wei Wei
Associate Professor




**Tolulope
Fadina**
Instructor

December Graduates



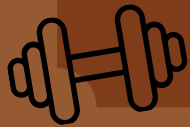
Jacob Anastasi
Ted Conneen
Henry Curcio
Alfredo Gomez



Ben Norris
Kevin Yang
Avery Yang
Tristen Yen



The Activities & Recreation Center (ARC)



The ARC at UIUC is a place where anyone can take their mind off of their stressors and come have a few hours of fun with their friends. From being built in August 2008, taking about 1 year and 5 months to build, this \$54 million dollar building was a necessity for the campus. The ARC contains 340,000 square feet of activities provided for U of I's students. This includes multiple gyms, outdoor and indoor pools, indoor track, rock climbing walls, strength and conditioning areas, and so much more. In addition to all of the fitness related aspects the center offers, they also designate study areas and email centers for members to utilize. The ARC is a resource that all students and faculty are provided with; however, additional memberships can be purchased in order to gain access to even more resources that it offers.



ASC members go rock climbing



The memberships include group fitness passes, intramurals, and a variety of adventure recreation activities, etc. Some of the group fitness classes that the center provides include cycling, zumba, yoga, pilates, dance fitness, and so much more. I, myself, have taken advantage of these classes and will continue attending. They really help one get their mind off of schoolwork and relax. Intramurals and the rock climbing wall allow members to bring in some friends and have quality time doing activities they enjoy. In the past year, the Actuarial Science Club itself has participated in creating an intramural team and competing. Some members also spent time going rock climbing together at the ARC rock climbing wall. Lastly, many may not be aware that the ARC contains a kitchen that is designed to educate students on cooking for themselves or how to make nutritious food for themselves. They offer classes that create a variety of different cultural foods for everyone to enjoy.

-Jessica Cudzich, Class of 2027

Events of Green Street

Illini Union

The Union building officially opened on Feb. 8, 1941 during the second World War.

One year later, it was dedicated by First Lady Eleanor Roosevelt.

1942

2002

Throughout the 1980s, Green Street was plagued with flooding from Boneyard Creek. Nobody wanted to go on the street!

Streetscape

All this began to change in 2002 with the launch of Streetscape, a three-stage project that ended in 2016. Since the launch of Streetscape, the Campustown has generated \$355 million in reinvestment.

Fire

On March 23, a fire damaged three businesses on Green Street: Mia Za's, Zorba's restaurant, and the Pitaya boutique.

The owner of Mia Za's ultimately used the event to help the restaurant come back stronger with an updated menu, pricing, and new technologies and equipment.

2011

2022

Over the summer, a mural artist named Levar Hoard from Chicago painted a 160-foot mural of Alma Mater wrapped within a DNA strand, florals, and violet clouds.

Murals

It became part of the Boneyard Area Mural Initiative (BAM!), a multi-year project focused on revitalizing Campustown with public art.

Current Number of Restaurants: 30

Acknowledgement

Special thanks to...

Frank Quan
Stefanie Klajbor-Goderich
Jonathan Ankney
Stephanie Yang

Emily Hylbert
Lyndsey Bajgrowicz
Tolulope Fadina
Actuarial Alumni Community



2023-2024 ASC Executive Board



Top Row (left to right): Abhi Sitaram, Sam Jourdan, Ethan Lin, Aleena Ukkan
Middle Row (left to right): Daniel Polites, Anika Chakraborti, Anna Schulz, Emily Hylbert
Bottom Row (left to right): Stephanie Yang, Pooja Khatri, Nicole George, Kaia Hsu