

# Geography & Geographic Information Science



## *Bruce Hannon (1934-2024)* *A Lifelong Commitment to Time and Place*

As professor emeritus **Bruce Hannon's** former students, we are honored to share this remembrance and united in celebrating his life and legacy. His sudden and unexpected passing on February 18 shocked and saddened us beyond words. Bruce was born in Ivesdale, a rural community not far from Urbana-Champaign, and went on to earn all his degrees from the University of Illinois, culminating with a PhD in engineering mechanics in 1970. He became an avid environmentalist along the way and led a successful campaign to prevent the proposed Oakley Dam that would have flooded Allerton Park.

Bruce profoundly altered the course of all our lives and helped us forge our goals, professions, and ultimately our visions of what our careers could become. He was a kind and positive person who exhibited an openness to

alternative perspectives and an eagerness to engage with others. Having come to geography from outside the field, Bruce held an expansive worldview that transcended the discipline's traditional dualism between human and physical. He was a "Renaissance man" with deep knowledge on a broad range of subjects. In his research and teaching, he extended quantitative modeling principles to biological, chemical, demographic, ecological, economic, and mechanical systems. A standard part of any of his modeling assignments was to identify an analog for the system under consideration. Learning by analogy was his signature approach; he was fond of saying "if necessity is the mother of invention, then analogy is the father."

*Continued on page 5*

## Understanding the Future Through the Land Around Us

On any given drive across the countryside, you may see cornfields or a forest. Professor **Chunyuan Diao** sees a complex terrestrial ecosystem that can provide clues to improving food security, climate change, and sustainability. Since joining the department in 2017, she has become a highly respected researcher of ground dynamics and developed CropSight, a reference data framework that can help us better understand the land around us. Chunyuan discussed her research with the College of LAS this spring.

*What are you working on now?  
Why are you passionate about this area of study?*

My research mainly lies at the confluence of remote sensing, GIScience, and biogeography. My current work focuses on computational remote sensing of terrestrial ecosystem dynamics at local to global spatial scales, and daily to decadal time scales. I am passionate about advancing computational remote sensing paradigms to characterize land surface patterns and processes, underlying mechanisms, and subsequent feedbacks to the atmosphere.

*Continued on page 8*



Chunyuan Diao

Above: *The Land-use Evolution and Impact Assessment Model (LEAM) research lab in 2004.*  
Seated: **Bruce Hannon**, Varkki Pallathucheril; Standing, left to right: Zhanli Sun, Mike Woodley, Saket Sarraf, Yong Wook Kim, Krishna Patnam, Jean-Philippe Aurbambout, Yu Xiao, Sara Metcalf, Jeff Terstriep, Yun Wang, Todd BenDor, John Rafferty, Woonsup Choi

# From the Department Head

## Geography & GIS faculty, students, and alumni continue to shape the world around us

in fields ranging from agriculture to migration to emergency management. We are immensely proud of the multiple honors and fellowships awarded over the past year for research, teaching, and mentorship. With Chunyuan Diao's selection as an AAG Fellow, we now have the highest number of fellows of any department our size! I am especially pleased to note the accomplishments of our human geographers—from our graduate students invited to UCLA and Cornell summer workshops to Brian Jefferson's residential fellowship at the Institute for Advanced Study in Princeton. And new faculty member Sofía Zaragocín will help us build stronger bridges with the other departments in the School of Earth, Society & Environment as we all struggle to understand and ameliorate the effects of a changing climate.

Sadly, 2024 marked the passing of alumni Janice Monk and Bruce Hannon, both of whom played fundamental roles for so many geographers at Illinois and across the discipline. I first met Jan (before I came to Illinois) in 2006 at a regional meeting of the AAG in Oregon. She always advocated for junior scholars and embodied the tenets of feminist geography. Bruce was one of my first mentors at Illinois, providing encouragement



Jan Monk and Julie Cidell on a field trip to the coast during the 2006 Association of Pacific Coast Geographers in Eugene, Oregon. (Photo by Bob Richardson)

and support in my early career. He lives on as a vital part of the university and central Illinois communities, remembered whenever we walk the Allerton Park trails or hear the clocks chime at Urbana's Courier Café and Silver Creek.

Feel free to contact us at [geography@illinois.edu](mailto:geography@illinois.edu) to share news or updates and let us know if you will be visiting campus!

**Julie Cidell**  
[jcidell@illinois.edu](mailto:jcidell@illinois.edu)

## Eric Shook (PhD, '13) Receives Distinguished Alumni Award

This year's Geography & GIS Early Career Distinguished Alumnus Award is presented to **Eric Shook** (PhD, '13), associate professor in the Department of Geography, Environment, and Society and director of the GeoCommons at the University of Minnesota. We welcomed Eric back to campus on Nov. 8 to accept the award and present *Broadening Geospatial Computing: Innovation Meets Education* during Friday colloquium. Eric also got to spend time with former advisor **Shaowen Wang** and members

of the CyberGIS Center for Advanced Digital & Spatial Studies.

"It has been a true pleasure to witness Eric's evolution from a highly motivated student into an outstanding scholar in the field. His innovative contributions and passion for advancing and sharing knowledge have earned him this well-deserved departmental recognition and I couldn't be prouder of his achievements," said Wang.

Eric's research combines geographic information science and computational



Shaowen Wang, Eric Shook, and Julie Cidell at the Alumni Award reception on November 8, 2024.

science in an area called geospatial computing. He also currently serves as vice-chair of education and board of director member for the University Consortium for Geographic Information Science.

This newsletter was produced by the College of LAS Office of Communications and Marketing and edited by Matt Cohn. Please visit [illinoisalumni.org](http://illinoisalumni.org) to update your contact information, submit a class note, and check out the latest news and events for and about Illinois alumni.



# Congratulations GGIS Class of 2023-24

## Fall 2023, Spring 2024, and Summer 2024 Degree Recipients

### Bachelor of Arts / Science

Giezi Ahmad  
Mohammad Ahmadi  
Yanfu Benson Bai  
Kiara Balleza  
Muriel Bowen  
Nolan Butler  
Jack Chen  
Tiffany Chen  
Timothy Gillmore  
Benjamin Gorski  
Rory Hamilton  
Jacob Houseman  
Zona Hrnjak  
Stefan Ilic  
Laila Ismail  
Yixiao Li  
Esther Lin  
Shaoyi Liu  
Karol Paluch  
William Richardson  
Veena Saraswathula  
Jason Segal  
Jinzhe Wang  
Ziming TJay Wang  
Tyler Weszt  
Kei Yamato

### Bachelor of Science Computer Science + GGIS

Mingjun Liu

*Congratulations to our annual undergraduate award recipients!*

#### Jerome D. Fellmann Award

Kei Yamato

#### John Thompson Award

Muriel Bowen  
Jack Chen  
Jason Segal

*The Fellmann and Thompson awards honor Geography & GIS graduating seniors who have demonstrated outstanding academic performance and made significant contributions to the department.*

#### Yvette B. Hernandez Scholarship

Rebekah Turner

*This annual scholarship, established by founder and CEO of UrbanGIS Keith Searles (BS, '96, civil and environmental engineering), recognizes a student who demonstrate extensive GIS skills and excellent leadership qualities.*

### Graduate Degrees

#### Professional Science Master's

Joseph Franke  
Ju He  
Wayne Hsieh  
Zhenghao Pei  
Tan Su

#### Online Master's in CyberGIS & Geospatial Data Science (Inaugural class)

Jake Dennison (BS, '21)  
Nakul Gupta

#### Master of Arts / Science

**Emily Allen**, *Spatial patterns and drivers of floodplain change in the Squamish River, a dynamic gravel bed river*

**Duncan Anderson**, *Tundra fire driven surface subsidence increases spectral diversity on the Yukon-Kuskokwim Delta, Alaska*

#### Non-thesis

**Emma Hall** (PhD candidate)

**Alex Michels** (PhD candidate, informatics)

#### Doctor of Philosophy (PhD)

**Fangzheng Lyu**, *An Integrated CyberGIS and Machine Learning Framework for Data-intensive Urban Analytics*

Fangzheng started this fall as a tenure-track assistant professor of geography at Virginia Tech.

#### Mishel Milagros Melendez-Bernardo

*Lateral response of alluvial rivers to the downstream passage of episodic sediment pulses*

Mishel started this summer as a geomorphologist with Wetlands Research Associates Environmental Consultants in Emeryville, California.

**Tanya Shukla**, *Form and function of anabranches and floodplain secondary channels in lowland meandering river systems*

Tanya joined the Oregon State University Department of Biological and Ecological Engineering as a postdoctoral research associate.

**Zijun Yang**, *A Phenology-Guided Deep Learning Framework for Near Real-Time Crop Monitoring*

Zijun started this fall as a tenure-track assistant professor in the Department of Earth and Ocean Sciences at the University of North Carolina-Wilmington.



Front Row, from left: Veena Saraswathula, Zona Hrnjak, Jake Dennison, Nakul Gupta, Zijun Yang. Middle row: Chunyuan Diao, Laila Ismail, Yixiao Li, Nolan Butler, Fangzheng Lyu, Marynia Kolak. Back row: Michael Minn, Ziming TJay Wang, Mohammad Ahmadi, Tyler Weszt, Kei Yamato, Benson Bai, Julie Cidell

# Mapping and Cycling for a Cause

## My Cross-Country Adventure with Illini 4000

by Zona Hrnjak (BS, '24)

**Illini 4000 (I4K) is a non-profit, student-run organization that fundraises for cancer research and support services** and leads an annual cross-country cycling trip from New York City to San Francisco. I heard about the club in high school and jumped at the opportunity to join during my sophomore year at Illinois, after a long period of COVID isolation. I would get to bike across the country, make new friends and raise money to fight a disease that had affected many of my family members. And as a geography major, I was also excited to help map the daily routes for the trip.

Each August, the I4K team starts planning the route by selecting stayover towns that are approximately 70 miles apart. We then use the Ride With GPS app to automatically connect those towns into a route and check the route each day to make sure it is actually safe for cyclists, rerouting to safer roads whenever possible.



*Riding through the Bighorn Mountains in Wyoming.*

After helping plan the route and other logistical details, it was finally time to join the ride in May 2022. The Bighorn Mountains in Wyoming were my personal highlight. We spent two days there: one day climbing over 6,000 feet in 40 miles to Meadowlark Lake and the next day descending into the beautiful Tensleep Canyon. It was a rewarding, exhilarating, and gorgeous stretch!

The most challenging leg of the ride for me was Oregon, where we biked down the I-5 stretch through Portland, Eugene, and Grants Pass. Every day was hot, well over 100°F, and the frustration began to bubble up after being on the road for 60+ days. We saw rampant homelessness and drug use in Portland, and I started to feel safer risking catching COVID-19 than wearing a mask given the vitriolic responses to mask-wearers. We had to shuttle in our support van for a day due to a nearby wildfire. The ride became a crash course on America's biggest environmental and social problems but also reminded me of another reason I love cycling: there's no hiding from what's happening around us.

My experiences, all the highs and lows, informed a lot of my interests in geography through the rest of my time in college. When professor Julie Cidell talked about embodiment in her transportation geography class, I reflected on how the embodiment we felt as cyclists out in the elements is different from the protected experience of being in a car. And I thought about how much our infrastructure varies by city and state. In talking to our stayover hosts about their experiences with cancer through the Portraits Project, we heard first-hand about how community and geography affect people's medical outcomes. I4K gives you this very personal, exposed experience of the variety of the American landscape, which endlessly sparked my curiosity as a student of human geography.

If you want to ride with the Illini 4000, our application opens in September and we accept applications from anybody, both undergraduate and graduate students at any university: alumni, townies, and anyone in between! If the ride itself isn't for you, we appreciate donations for our beneficiaries, but also other kinds of support. I was on the board of directors for two years after my ride and served as 2023-24 club president. We welcome board members who were not past riders, and are always seeking help with logistics, fundraising, gear, physical training, the Portraits Project, and so on. If you have expertise to share, anything from non-profit, grant writing, video editing, accounting, cycling training or mechanics, please visit [illini4000.org/contact-1](https://illini4000.org/contact-1).



## Bruce Hannon

*continued from page 1*



*Bruce acquired this clock from Bement High School and lent it to the owner of Silvercreek in Urbana, who commissioned a new display case and held a surprise unveiling ceremony in 2022. (Photo courtesy Lynn & Karen Clarkson via Legacy.com)*

Some of us worked in his research lab; some of us were his geography graduate advisees; some of us were his advisees in other disciplines; some of us were his co-authors of papers and books; some of us he advised informally; some of us became acolytes after taking his dynamic modeling courses. For many of us, Bruce was,

undoubtedly, the reason we came to Illinois. For all of us, Bruce was an advocate. He always saw good in each of us and was generous in his praises. He was welcoming, gently encouraging us to follow our particular passions. For all these reasons, our memories of Bruce are fond and indelible.

We remembered meeting with Bruce in his Davenport Hall office, lined with bookshelves and filled with a wide range of treasures, including many copies of his own books. We remembered the equations on his office blackboard. We remembered the clocks and Persian rugs that made the space warm and welcoming. We remembered curiosities like the sand-filled device he created to demonstrate the Pythagorean theorem. We remembered how he valued the small things that others often overlooked—even a single Bur oak acorn was a treasure.

Bruce's sense of place was firmly rooted in Urbana-Champaign and its environs. In our discussions about sense of place, he expressed that “no one can develop a sense of place without a deep knowledge of the natural and social history of that place.” His sense of time was honed by his skill as a clockmaker. His passion for restoring antique clocks reminds us of

his love of the past and his dedication to the future of our environment and our communities.

In jointly writing this remembrance, we wanted to bring some of these memories back to the fore and share them with you, among whom there are many that count yourselves his students and whom he affected in the same timeless manner.

### Contributors:

**Todd BenDor** (PhD, '07, urban planning) University of North Carolina at Chapel Hill

**Woonsup Choi** (PhD, '05) University of Wisconsin-Milwaukee

**Emily Lankau** (PhD, '11, animal sciences) independent consultant

**Sara Metcalf** (PhD, '07) University at Buffalo

**Krishna Patnam** (MS, '04, civil engineering) Consulting Manager, AECOM

**Matthias Ruth** (PhD, '92) University of York, UK

**Saket Sarraf** (PhD, '12, regional planning) ps Collective, Ahmedabad, India

**Jürgen Scheffran** (research scientist, 2004-09) Institute of Geography, University of Hamburg

**Zhanli Sun** (postdoc and research scientist, 2006) Leibniz Institute of Agricultural Development in Transition Economies

## Janice Monk (1937-2024)

*by Sara McLafferty*

**Janice (Jan) Monk** (MA, '63; PhD, '72), professor emerita in the School of Geography, Development and Environment at the University of Arizona, passed away on July 12 in Tucson. After earning her graduate degrees in this department, advised by professor Charles Alexander, she was appointed assistant professor in 1972 but unjustly denied tenure in 1980. She then joined the faculty at Arizona and served as director of the Southwest Institute for Research on Women, a leading center for place-based gender research.

Jan was a pioneer in feminist geography. Her seminal 1982 article, “On Not Ignoring Half of the Human ...” (with Susan Hanson) exposed gendered silences in the discipline and argued persuasively for feminist modes of inquiry. Working from detailed oral histories, her later publications probed the complex histories of women geographers to reveal inequities, barriers, and processes of marginalization that endure today. Jan's work consistently highlighted how context—place,

time, class, and culture—shape women's experiences.

“Connection” was a central theme throughout Jan's career. She was a friend, mentor, and advocate for people from all parts of the globe and fostered an international network of scholars who examine the intersections of gender and geography from diverse perspectives. In 2017, Jan was awarded this department's inaugural Distinguished Alumna Award for her pathbreaking contributions to geography and gender studies. The Association of American Geographers (AAG) recognized Jan with a Lifetime Achievement Award in 2000 and she served as AAG president from 2001-02. Her legacy persists in this vibrant, inclusive, and expanding global network and in the joy and support she gave so many of us.



# *New Tenure-Track Faculty*



## **Amplifying Feminist Voices and Collective Practices**

**Sofía Zaragocín**  
assistant professor

### ***How did you decide to become a geographer?***

While working as a consultant for the United Nations, I led a study on the link between gender-based violence and border spaces in the Andes. I knew immediately that human experience was intricately tied to the social construction of space. I had also become acutely aware of the importance of place for everyday life as a child migrant to the United States. Finally, I have spent most of my adult life in the Global South, primarily in Ecuador except for five years of doctoral studies in the UK. I continue to transit between the Global South and North, which has informed my research and teaching practices. As I crossed the border again and again — in my life, research, homemaking, teaching, collaborations, and lectures — I saw and now write about critical geography scholarship on gender, race, and territory.

### ***What is your most memorable field research experience?***

I balance my work to make and execute national and international policies with on-the-ground activism. My most memorable field experiences have been within collective critical geography spaces. In 2019, I co-founded Re-Existencia Cimarrunas, a transnational antiracist collective that brings together activists and researchers based in Ecuador who advocate for a hemispheric approach to antiracism. I have also been a key member of the Critical Geography Collective of Ecuador since 2014, a feminist geography collective in Latin America that focuses on social transformation from autonomous spaces of knowledge construction.

Both collectives are research activist spaces that prioritize collective (versus individual) authorship and action on feminist geography and support the development and dissemination of antiracist literature at local, urban/rural, national and global scales.

### ***What are your current research interests and directions?***

I combine social cartography, ethnography, and oral history to translate and enact critical geography and feminist theory at a hemispheric scale. One of my longtime core research areas has been the relationship between gender-based violence in the extractivist industry and aquatic spaces (rivers and oceans) across the Americas, because I believe this topic has hard-hitting policy implications for climate change while allowing for the articulation of decolonial feminist theory and methods. I am currently leading a project that focuses on gender-based violence, feminist political ecology and feminist geography in the Galapagos Islands where I have been doing research since 2020 - examining how gender-based violence occurs in insular spaces where infrastructure and resources are limited.

The next phase in this project looks to understand the complexities of working on gender-based violence in a UNESCO world heritage site where inhabitants, and in particular women, perceive that the rights of nature are more valued than their rights. My goal with this work is to connect two Island spaces in Latin America such as the Galapagos Islands and Easter Island, both highly understudied areas with regards to feminist geography perspectives.



# Faculty Awards & Honors



**Julie Cidell** was a visiting scholar-in-residence at the Sorbonne Institut de Geographie in Paris last fall, where she presented a research project “Redeveloping North American railyards and remaking urban space.” She also visited the Transport Studies Unit at Oxford (UK) and presented

“Container choreography and pop-up ports: flows, overflows, and pauses in the US 2021 supply chain crisis.” On the U of I campus, she will serve as Co-Principal Investigator on the Institute for Sustainability, Energy, and Environment (iSEE)-funded Sustainable Low-Carbon Transportation Initiative, a project that aims to provide a grand vision and detailed engineering guidelines for next-generation decarbonized transportation systems.



**Chunyuan Diao** was promoted to associate professor with tenure effective August 16 of this year and was named a College of LAS 2024-25 I.C. Gunsalus Scholar, an award that recognizes young faculty members for their scholarship and teaching in physical and life sciences. Diao was

also selected as a 2024 Fellow of the American Association of Geographers (AAG), a recognition and service program for geographers who have made significant contributions to geography. The AAG award citation notes that “Dr. Diao is an outstanding early-career scholar whose extensive research contributions and service to the AAG have strengthened and advanced the field of remote sensing and geographers’ roles in it. Her publications in leading journals and extensive grant-funded research activities have creatively advanced our ability to monitor and model ecosystem dynamics across natural, human-natural, and disturbed biogeographical systems at multiple spatial and temporal scales. Dr. Diao’s leadership and service to the AAG Remote Sensing Specialty Group have fostered a supportive and expanding scholarly community; and her effective teaching and mentorship activities are helping to develop a new generation of remote sensing scholars whose diversity more fully represent the populations impacted by global eco-environmental change.”



**Brian Jefferson** is spending the 2024-25 academic year at the Institute for Advanced Study’s School of Social Science in Princeton, New Jersey. The school invites approximately 20 scholars each year from around the world to share theoretically innovative,

multidisciplinary work-in-progress and ideas. The working title of Brian’s project is “Cybernetic States: Communication, Control, and State Restructuring in the Advanced Research Projects Agency (ARPA).”



**Marynia Kolak** and co-PI Paul Joudrey, MD (Pittsburgh) were awarded a \$2.8 million grant from the National Institutes of Health (NIH) / National Institute on Drug Abuse (NIDA) for their LOUD Study: ‘Localize Opioid Use Disorder (LOUD) response to increase medication

access,’ which aims to improve receipt of services across each step of the opioid treatment cascade via data-driven tailoring and monitoring of services. Marynia also received a Lincoln Excellence for Assistant Professors (LEAP) Scholarship from the College of LAS, which is presented to early-career faculty in recognition of their scholarly productivity and contributions to the educational mission of their departments and the College. Scholars hold the title for two years and receive discretionary research funding each year.



**Mark Lara** also received a Lincoln Excellence for Assistant Professors (LEAP) Scholarship from the College of LAS.



**Bruce Rhoads** was named the 2023-24 College of LAS James Scholar Honors Program Faculty Mentor of the Year, an award that recognizes faculty members who exemplify the Honors mission and who have inspired, supported, and challenged their students to develop as Honors students and as individuals. Rhoads

was nominated for this award by **Kei Yamato** (BS, '24), a James Scholar and former GIS major who assisted Rhoads with fieldwork as a Roepke Research Scholar and ultimately decided to continue in our program as a PhD student.

## CHUNYUAN, continued

My work combines remote sensing, process-based models, field observations, artificial intelligence, and high-performance computing to study ecosystem structures, functions, and responses to climate change and human activities. My ongoing research spans varying types of ecosystems, including natural (e.g., forest), human-dominated (e.g., agriculture), and disturbed (e.g., species invasion) ecosystems. Current research foci include computational remote sensing, multi-scale land surface phenology, intelligent agriculture, and invasive species and biodiversity.

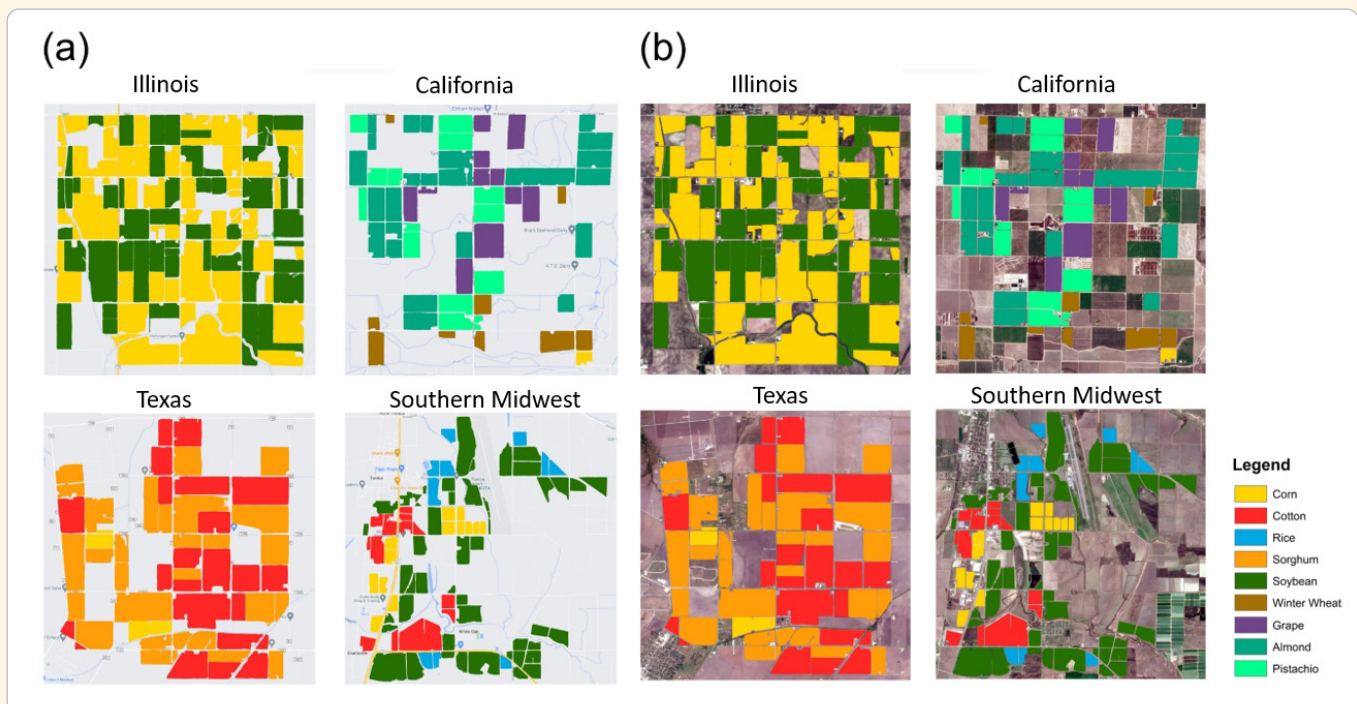
### **What challenges have you overcome to better understand this area of research?**

In agricultural remote sensing, the difficulty in collecting accurate ground truth data of crop types over space and time has hindered many agricultural studies, and the lack of crop type labels over wide geographical regions remains a major obstacle. To overcome this challenge, we innovatively leveraged Google Street View imagery and developed a novel framework called CropSight to retrieve the object-based crop type ground truth. CropSight is a unique national-scale crop type ground reference data repository and embodies a wealth of season-long remotely sensed crop growth and environmental attributes across crop growing locations for most crop types in the U.S. CropSight can be generalized to continental and global scales, and will be used as a large-scale, systematic, and consistent ground reference data repository. Addressing

this challenge opens new opportunities to many agricultural remote sensing studies, including crop type mapping, condition monitoring, and yield estimation.

### **Please describe a moment when your professional career changed direction.**

Since I joined our university, I have largely expanded my research area to agriculture, an exciting area of our campus research strength with significant societal impacts. The stronger emphasis of my research on agricultural remote sensing is owing to the significance and its impacts on food security. The global demand for agricultural crops is rapidly increasing with the continuing growth of the worldwide population, posing significant threats to food security. This escalation in crop demand means more agricultural production, which overstrains ecosystem services and causes drastic environmental degradation. So there is an increasing need to transform agricultural systems into resource-efficient systems that are both productive and environmentally sustainable. I am excited to dive into this new research area. Built upon the concepts of digital agriculture and precision agriculture, I am particularly interested in advancing monitoring and modeling constituents underlying intelligent agricultural systems, with the synthesis of multi-source remote sensing, crop and ecosystem models, deep learning, and farm experiments.



Maps of object-based crop type ground truth produced by CropSight using latest images (2023) in four distinct study areas. (a) displays the overlay of crop type labels on Google Maps. (b) displays the overlay of crop type labels on off-season PlanetScope images. Image courtesy of Chunyuan Diao.



# Undergraduate Roepke Research Scholars

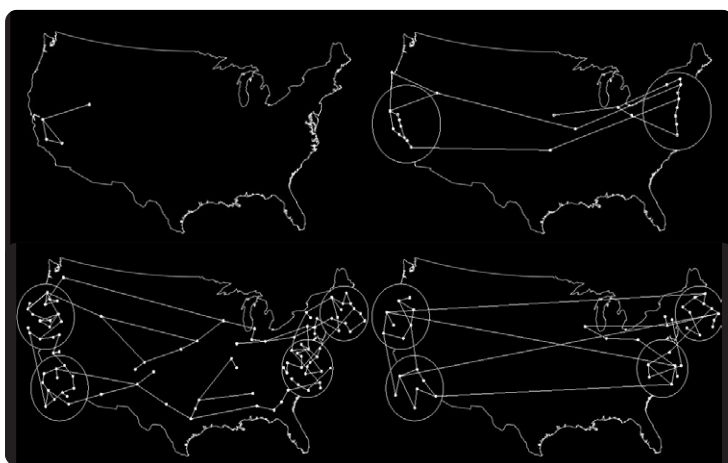
## Tiffany Chen (BS, '24)



I worked as a Roepke Research Scholar with **Dr. Brian Jefferson** on his 'Illustrations of Communication and Control Processes' project. My role as a research assistant involved data collection, diagram design, and ensuring stylistic consistency. The figures I worked on included cybernetics geopolitical flowcharts, ARPANET network cable maps, and

logic gates with neuron connector diagrams. I gained a holistic understanding of global development from mapping internet usage, telegraph networks, and railroad development; and working as a geo-visual coordinator on Dr. Jefferson's cybernetics research deepened my understanding of geography and its connections to political, technological, and environmental fields.

The hands-on experience as a Roepke Scholar broadened my perspective on geography and its extensive applicability. Inspired by this cybernetics research, I plan to continue this work in both my career and further studies in geography and GIS. Post-graduation, I aim to apply my passion for serving my community by addressing geospatial and complex issues related to waste management, energy, and transportation.



Expansion of ARPANET cables and network access between 1969 and 1989.  
Map by Tiffany Chen.

## Jason Segal (BS, '23)



During my time as a Roepke Scholar with **Dr. Julie Cidell's** Society, Mobility and Infrastructure at Illinois (SMIIL) Lab, I worked on the Freight (de)Centralization project, which is a follow-up to a groundbreaking study she conducted showing that freight and logistics activity were decentralizing in most U.S. metropolitan areas and away from city centers.

I used a variety of geographic and research techniques on this project. Collecting and aggregating the data took a lot of time and required meticulous work to comb through, clean, and select the county data for all 51 metropolitan areas that we looked at from the years 2005 and 2020. To understand how the concentration of warehouses differed from each of the metropolitan areas, we calculated a Gini-index (coefficient) for each area based on the distribution of warehouses across the area's counties. This allowed us to quantify how the distribution of logistics centers changed from 2005 to 2020 and compare it with the prior trend. I could then also map the data using GIS software and properly classify it to ensure it was properly visualized, which allowed us to find spatial trends in the data like a coastal-versus-heartland pattern that appeared to be emerging.

Working on this Roepke Research project with Dr. Cidell was a great opportunity to apply skills I learned in my undergraduate coursework. Since graduating from UIUC, I have begun working in the Emergency Management field which has a large logistics component. And I'm proud to share that I recently received the Illinois Emergency Services Management Association's (IESMA) Student of the Year Award!

**Read Tiffany and Jason's full stories** and hear from other Roepke Research Scholars at: [ggis.illinois.edu/academics/undergraduate-programs/roepke-scholarships](https://ggis.illinois.edu/academics/undergraduate-programs/roepke-scholarships)

Professor Howard Roepke was a Geography faculty member from 1955-1985, and his estate provided a generous gift to the University of Illinois Foundation to provide our undergraduate majors with unique academic and research opportunities. To make a gift, please visit [ggis.illinois.edu/giving](https://ggis.illinois.edu/giving) or contact the U of I Foundation at [uif.illinois.edu](https://uif.illinois.edu)

# Graduate Student Honors & Awards

## Poster Awards at the 2023 AAG West Lakes Annual Meeting October 20-21 at Depaul University, Chicago

### GRADUATE POSTER AWARDS

**Andrea Pimentel Rivera** | First Prize

*Turning the helm over to the passenger:  
A qualitative exploration of the maritime transportation cooperative  
proposal in Vieques, Puerto Rico.*

**Gyudae Kim** | Third Prize

*Assessing Urban Heat Islands in Chicago:  
Implications for Vulnerable Populations and Green Infrastructure.*

### UNDERGRADUATE POSTER AWARD

**Jinzhe Wang, Wataru Morioka, and Julie Cidell** | First Prize

*Railyards Redevelopment and Environmental Justice in Kansas City*



From left: Julie Cidell, Andrea Pimentel Rivera, Michael Minn, GD Kim, Lauren Weber, Catherine Discenza, Wataru Morioka



PhD student **Marina Moscoso Arabía** was invited to attend the Summer 2024 Freedom School, an initiative of the UCLA Luskin Institute on Inequality and Democracy as part of its Housing the Third Reconstruction endeavor. The convening theme was *Insurgent Ground: Land, Housing, Property*.



PhD student **Kei Kato** was awarded the Unit for Criticism & Interpretive Theory's Nicholson Fellowship to attend the School of Criticism and Theory (SCT), a six-week intensive summer program at Cornell. We asked him to reflect on the experience and share future research ideas.

My research interests include critical infrastructure studies, environmental and blue humanities, decolonial geographies, and settler colonial studies. Drawing on these bodies of literature, I seek to understand how the ocean, its inhabitants, and human societies interact. Specifically, my research focuses on how settler colonialism within the U.S. and around the world in the 21st century is interconnected through ocean infrastructures such as ports and maritime shipping routes. Yet, scholars have not focused enough attention on ocean infrastructures that fuel settler colonialism and I hope to address this critical knowledge gap.

This summer, I joined fellow participants from around the world, mostly from humanities backgrounds, to learn

about and discuss critical theories at Cornell. Among the four seminars offered, I chose Dr. Stephanie LeMenager's 'Climate Humanisms, Fictional Futures,' where we explored the intersections of the climate crisis and its associated violence on humans and other living beings through critical theories and novels. I gained insight into how the exploitation of so-called natural resources correlates directly with the exploitation of humans, and I became curious about how certain groups are dehumanized when oceanic resources are exploited. This question is now part of my doctoral research.

One benefit of SCT is that participants can have frank conversations with globally renowned scholars in a mutually supportive setting. Indeed, talking with Dr. LeMenager outside the seminar was equally helpful in developing my research. Since Israel and its allies escalated their military operations in Palestine last year, I learned that the ocean is a significant infrastructure sustaining global militarism and, therefore, anti-war resistance. Although I was intrigued by this fact, I was still determining how I could link it with my interest in settler colonialism within the U.S. Conversations with Dr. LeMenager and her suggested readings helped me make connections between these two interests and I look forward to developing them with my dissertation committee.



# New Graduate Students



**Mahjabin Kabir Adrita** completed her bachelor's at the University of Dhaka, Bangladesh and her master's at Virginia Tech. Her research interests include public health, healthcare disparities, their geospatial distribution; and connections using mixed-method approaches. *Advisor: Marynia Kolak*



**Camrin Garrett** has a BA and MA in urban planning from Illinois. He is interested in GIS, public health, public education, and libraries. *Advisor: Marynia Kolak*



**Finja Hinrichs** is a Fulbright visiting master's student (fall semester) from the University of Bonn, Germany. Finja has a BS in applied geography and studied MS regional planning before transferring to Bonn's geography MS program. Finja is interested in health geography, particularly in gendered and intersectional experiences of health and health care. *Advisor: Marynia Kolak*



**Yuanzhi Ma** has a BS in Engineering Management from Henan University of Economics and Law and an MS in Ecology from the University of Chinese Academy of Sciences. He is interested in the dynamics of lakes, reservoirs, and wetlands, as well as the carbon cycle. *Advisor: Jida Wang*



**Vicky Brown Varela** has a BA in International Studies from American University in Washington, D.C. Her research examines the political-economic and ecological workings of urban development in San José, Costa Rica, with a focus on how urban citizenship and state-capital relations are reshaped within contested and fragmented environments. *Co-advisors: Nikolai Alvarado, David Wilson*



**Fangyi Wang** has a BS in geographic information science from Huazhong Agricultural University and an MS in analytics from University of Southern California. She is interested in remote sensing, GIS and geostatistics. *Advisor: Chunyuan Diao*



**Kei Yamato** completed a BS in geography & GIS in our department. His graduate research will examine interaction between lakes, reservoirs and rivers and utilizing the Surface Water and Ocean Topography (SWOT) satellite. *Co-advisors: Jida Wang, Jim Best*



**Dingqi Ye** earned a BS and MS from Central South University in Changsha, China. Her research interests include remote sensing image processing and computer vision. *Advisor: Shaowen Wang*





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