

DEPARTMENT OF GEOGRAPHY & GEOGRAPHIC INFORMATION SCIENCE



Distinguished Alumni Awardees Return to Campus



By Doug Peterson

Wayne Koonce (BA, '71) returned to campus on Friday, November 4th to accept his 2022 GGIS Distinguished Alumni Award, at a ceremony hosted by Department Head Prof. Shaowen Wang in the Russell Seminar Room.

After receiving the award, Wayne shared his Illinois experience and career journey and took questions from faculty and students on topics including sustainable buildings and urban development.

He also had individual and small-group discussions with faculty and students throughout the day and enjoyed a return visit to Geography's former home in Davenport Hall.

Koonce, an investment banker, has been involved in over \$8 billion worth of real estate deals, and credits the U of I and a strong geographic foundation for launching him on a path from a family farm in Illiopolis, Illinois to cities and exotic destinations around the world.

"In many ways, growing up on the farm in central Illinois was magical," he said, but his greatest passion has always been for the ecology of cities, so he enrolled as a geography major with an emphasis on urban planning upon arriving at the U of I. At that time, there were not many study-abroad opportunities but an LAS associate dean "understood my dreams and how interested I was in the world and history and architecture." A year of study in Vienna, Austria, changed his life and encouraged him to keep exploring.

"Illinois opens up new worlds to people like me, whose experiences may have been rather limited," said Koonce. "I had strong academic interest in historical, cultural, and political geography with some focus on the growth and shape of metropolitan areas and have been able to use all of these concepts throughout my career."

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By Dr. Julie Cidell

Dr. Michael Widener (BA, '07) received the 2021-22 Geography & GIS Early Career Distinguished Alumnus Award and visited campus this fall to meet with faculty and students and present his research at Friday Colloquium. He earned a bachelor of arts with highest distinction in 2007 and went on to complete a PhD from the State University of New York at Buffalo in 2012.

Widener is a highly regarded health geography researcher currently serving as associate professor in the Department of Geography and Planning at the University of Toronto, with a cross-appointment in Epidemiology at the Dalla Lana School of Public Health.

His research focuses on the relationship between the built environment, mobility, and health, with current projects in two main areas: access to food and responses to COVID-19. Widener and his team work with a range of stakeholders, including governments, non-profits, and community organizations to ensure that his research can help improve urban food environments and access to healthcare services.

Widener has skillfully adapted his existing research to consider how the COVID-19 pandemic has negatively impacted equity-deserving populations. Specifically, he is tracking how transit riders' avoidance of public transit due to fears of virus transmission can affect their access to healthcare. His research on COVID-19, urban built environments, and transit demonstrates a strong commitment to using GIS techniques to tackle social justice and equity issues.

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From the Department Head

Greetings Geography & GIS students, faculty, staff, friends, and alumni:

I am pleased to share some of the happenings in and around Illinois Geography & GIS over this past academic year, my fifth as department head. It was exciting to return to fully in-person learning this fall and see everyone's tremendous efforts to work through the many pandemic-induced challenges. With full classrooms and plenty of in-person activities, the energy and vibe from students, faculty, and staff have been truly memorable and remarkable.

The department continues to thrive, and our faculty, students, and alumni have received numerous accolades including professional society fellowships, distinguished career awards, and invitations to speak at events and meetings. Earlier this fall, two new assistant professors joined our department: Dr. Marynia Kolak (PhD, Arizona State University) is a geographic information scientist and health geographer, and Dr. Raechel Portelli (PhD, the Pennsylvania State University) is a geographic information scientist and cartographer. Congratulations all!

I shared in last year's newsletter that several members of our faculty played leading roles in launching the Institute for Geospatial Understanding through an Integrative Discovery Environment (I-GUIDE), a \$15 million national institute funded by the National Science Foundation that is harnessing the geospatial data revolution to better understand the risks and impacts of climate change and disasters. I-GUIDE recently concluded its first year and you can read about some of our accomplishments in the first newsletter: go.illinois.edu/I-GUIDE-Sept-2022

Our new fully-online master of science and certificate programs in CyberGIS & Geospatial Data Science are now live! The first cohort of remote learners and working professionals

are already developing their skills in high-performance, data-intensive computing and geospatial data analysis and applications. Innovation is a hallmark of Illinois Geography & GIS, not only through our research endeavors but also manifested in our education programs. To learn more, please visit gis.illinois.edu.

We are extremely grateful to **Dr. Gary** (PhD, '79) and **Mary Molyneux** for establishing an endowment fund to support Geography & GIS doctoral students. I have enjoyed connecting and interacting with Gary this year and am inspired by his passion for making the world a better place through geographic approaches. Such generous support from alumni and friends keeps our department at the cutting edge of the discipline and helps us attract the brightest students.

I am immensely proud of our ever-growing Geography & GIS community and welcome you to get in touch and share your accomplishments and experiences. We always love hosting visitors at the beautiful Natural History Building. Check out our website (ggis.illinois.edu) and connect with us on social media. Thanks, and best wishes for a joyful holiday season!



Sincerely,
Shaowen Wang

This newsletter was produced by the College of LAS Office of Communications and Marketing and edited by Matt Cohn.

Please visit illinoisalumni.org to update your contact information, submit a class note, and check out the latest news and events for and about Illinois Alumni.

Remembering Dr. Arthur Getis (1934-2022)

By Dr. Geoffrey Hewings



Dr. Arthur Getis, an innovative and renowned spatial statistician, passed away on May 13th. His work with Dr. Keith Ord resulted in the development of the Getis-Ord statistic – a measure of values in neighboring locations over some defined distance, over the values of all observations. He also co-edited the *Journal of Geographical Systems* for several years and was later recognized as its honorary editor.

Getis joined our department in 1977 and served as department head until 1983, when he became Director of the School of Social Sciences within the College of LAS. While at Illinois, Art wrote the seminal textbook *An Introduction to Geography* now in its 13th

edition, with his wife Judy and colleague Jerome Fellmann. Getis left in 1990 to lead a new PhD program at San Diego State University.

He was an active member and supporter of the Western Regional Science Association (WRSA), establishing the Getis-Ord Lecture in Spatial Analysis as a feature of the annual meeting. Incidentally, Dr. Shaowen Wang delivered the 8th annual Getis-Ord Lecture in 2021.

Getis received many honors for his work, including the Walter Isard Distinguished Scholarship award from the North American Regional Science Association, the 2012 Regional Science Association International (RSAI) Founders Medal, and Distinguished Scholarship honors from the American Association of Geographers. He was elected a Fellow of the WRSA, RSAI, and the University Consortium for GIS.

Wayne Koonce, continued

Koonce appreciated the vision and dedication of geography professors who helped him chart his academic and professional journey and has continued to show his gratitude to the department, College of LAS, and campus community ever since – by hosting a Campaign Illinois event, joining the President's Council, and helping to set up a graduate fellowship fund in honor of a former professor. Koonce and his wife, Harriet Hentges, even established a bequest gift, the Wayne Koonce Endowment for Liberal Arts and Sciences. Koonce also won the 2017 College of LAS Dean's Quadrangle Award, given to alumni who maintain significant connections with Illinois.

"I have so many fond memories of the department and I'm especially grateful for all the advice, help, and support I got from department head John Thompson and from professors Joseph Russell, John Jakle, and Janice Monk," Koonce said. "They tirelessly wrote letters of recommendation, reviewed options with me, and gave sound advice as I applied for graduate programs."

Koonce landed a Danforth Fellowship shortly after graduation, which would fund his graduate studies including an internship in the Bureau of Budget for then-Illinois Governor Dick Ogilvie. He was an intern for only a month before becoming an assistant budget analyst and then, at the age of 20, moving into a more senior position.

"It was a heady experience for a young guy," he said.

The experience also ignited an interest in politics, which only intensified when the Danforth Fellowship set him up in the summer of 1972 at the Aspen Institute, a prominent think tank in Colorado where he encountered thought leaders including Secretary of State Henry Kissinger.

For the next four years, Koonce attended Harvard University, and after receiving a master's degree and juris doctor degree in 1976, he moved to Tokyo on a Henry Luce Scholarship. There, he researched the problem of highly polluting industries moving from Japan to Southeast Asia, where environmental controls were less stringent. He also took up Japanese art, immersing himself in Tokyo's art world through his teacher, a prominent painter and wife of the prime minister's chief of staff. "I was fascinated with Japan—the transportation issues, the planning issues, and the highly sophisticated train and subway systems," he said.

A year in Germany soon followed, where he worked in international law. Then the next

summer he was off to Switzerland to help renowned political scientist Karl Deutsch with the third edition of his seminal text on international relations. After living so long overseas, Koonce was happy to finally return to the United States, where he took a position with a leading law firm Wilmer, Cutler, and Pickering. But he was there for only four months when he was asked to move to London where they were opening a new office.

Politics continued to beckon, and in 1982 he came back to Illinois to work on policy issues for Adlai Stevenson III, who was in a fierce election campaign against sitting Governor James Thompson. When Stevenson narrowly lost after a recount, New York U.S. Senator Pat Moynihan invited Koonce to become his legislative director. He also did work in Illinois for Gary Hart, a presidential candidate who came out of nowhere to win the 1984 New Hampshire Democratic primary.

The year 1985 was a transition time for Koonce, as he moved out of politics and into real estate acquisitions, first for Peers and Company and then for his own business, Koonce and Company. This was also the year he married Hentges, who worked on corporate responsibility and sustainability issues for Walmart and then the Dutch group Royal Ahold.

After years in politics, Koonce said it was ironic that he came back to his first love at U of I—urban planning. The real estate deals he puts together are high-end projects that draw renowned architects and are at the forefront of urban design and planning. One of his first major deals, in 1988, was for the wealthiest family in Japan, who bought InterContinental Hotels worldwide for \$2.3 billion—which was at that time the largest hotel deal ever.

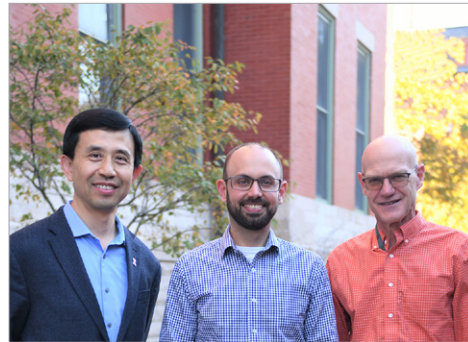
In addition, he has put together deals to buy The Sun-Times building, the Drake Hotel, and Peninsula Hotel in Chicago.

Koonce came full circle in his passion for cities, and also for farming. Until recently, he and his wife had owned a large Angus farm in Virginia. "It's been quite a journey from the farm in Illiopolis," he said, "and U of I opened up all of these worlds for me."

This article was originally published in 2017 by the College of LAS and adapted for this issue by Matt Cohn.



Michael Widener, continued



Widener at NHB with Professors Shaowen Wang and Awards Committee Chair Professor Bruce Rhoads

Dr. Michael Widener has credited our department on multiple occasions for sparking his interest in the relationship between the environment and health, and in geography more generally, as well as giving him the confidence to pursue a career in academia. He proudly carries on this tradition as a teacher and advisor, mentoring several graduate students at any given time, supporting them through research grants and co-authoring papers with them. He has also networked with our PhD students at conferences and via social media, sharing ideas and introducing them to other scholars in the field.

Dr. Widener is a top public health researcher whose work is making a strong local and global impact, thanks to his partnerships with city agencies, community members, and the geography scholarly community. On Friday, October 21st, Widener visited campus to receive the award and give a Friday Colloquium presentation, entitled “Urban Food Environment Research: How time, movement, and (sometimes) big data are transforming the study of food shopping in cities.”

Molyneaux Family Endows Graduate Support Fund

The department gratefully acknowledges **Dr. Gary** (PhD, '79) and **Mary Molyneaux** for establishing an endowment fund to support geography and GIS doctoral students. Molyneaux studied geography, urban planning, and landscape architecture with Professor John Jakle and went on to a distinguished career in the public and private sectors and higher education. He continues as a public policy advocate for transportation, urban design, and planning in his home state of Washington and at the national level.

Gary credits his career to the education, faculty, and resources he found in the department and across campus and he continues to be devoted to the University Library, “the best in the country,” he remarked.

“Geography provided me with the models, methods, and tools to organize and analyze not only data, but decision-making, goal development, and strategic pathways for successful project and program implementation,” said Molyneaux. “The department’s strong emphasis on writing and presentation skills played a key role in my first major position with the Pacific Northwest’s largest architecture and design firm, and it soon became clear to me that geographers and architects speak the same spatial language.”

Molyneaux is a founding member of the American Association of Geographers’ Applied Geography Specialty Group and received the Applied National Honor Award in 1996. He has

served on several National Science Foundation Transportation Research Board expert panels and was vice-chair of the Urban Land Institute’s research committee. He was also a journal referee for the *Annals of the AAG* and *Professional Geographer* and continues to serve on the local arrangements committee for AAG annual meetings held in the Pacific Northwest.

Gary and Mary Molyneaux have joined the University of Illinois Foundation President’s Council in accordance with this generous gift to the department.



Geography & GIS Class of 2021-22



Row 1, from left: Donald Planey (PhD, '20); Arrianna Planey (PhD, '20); Dr. Shaowen Wang, Jason Webb (BS, '21). Row 2: Yerrasyll Koshan (MS, '21), Zewei Xu (PhD, '20), Dr. Su Han, Dr. Sara McLafferty, Fikriyah Winata (MS, '16; PhD, '22) Row 3: Dr. Michael Minn, Dr. Julie Cidell, Adeniyi Adeleye (BS, '19); Joe Franke (BS, '22); Valerie Nelson (BS, '22). Row 4: Yiheng Zhou (BS, '21), Eleanor Hollas (BS, '22), Anslie Waldrep (BS, '22), Sean Kenny (BS, '21), Nathan Seiler (BS, '22)

Congratulations to our Fall 2021, Spring 2022, and Summer 2022 bachelor’s, master’s, and doctoral degree earners and award recipients. Best wishes as you continue your studies and begin your careers!

We were unable to gather in person for School of Earth, Society, and Environment (SESE) Convocation ceremonies in 2020 or 2021, so all students who graduated from the SESE departments since Fall 2019 were invited to participate in the Spring 2022 ceremony at Krannert Center.

Bachelor of Arts / Science

Jake Dennison
Adam Florzak
Joseph Franke
Kyle Gifford
Ari Greenberg
John Hanley
Tyran Hardin
Jonathan Hedien
Garrett Hiles
Eleanor Hollas
Evin Hook
Amina Jackson
Thomas Deul Kim
Matas Lauzadis
Seonghun Lim
Abigail Long
Haruya Maeda
Valerie Nelson
Jordan Parker
Yudi Mike Qin

Nathan Seiler
Jacqueline Eunhye Shon
Esme Snyder
Kavya Sri Vedurmudi
Anslie Waldrep
Zimo Xiao

**Jerome Fellmann
Undergraduate Award**
Tyran Hardin

**John Thompson
Undergraduate Award**
Valerie Nelson
Jacqueline Shon
Anslie Waldrep

**University Bronze
Tablet Honoree**
Anslie Waldrep

Messina-Stanley Graduate Scholarship in Geography

Fikriyah Winata

Master of Arts/Science

Ben Liebersohn completed his master’s research in big data analytics and was a member of the CyberGIS Center for Advanced Digital & Spatial Studies.

Ricardo Zapata has joined transportation planning firm Resource Systems Group, Inc., which provides research, analytic, and strategic consulting services to transportation agencies around the country. Ricky works in RSG’s survey research arm, advancing our understanding of individual behaviors, experiences, and perceptions of travel.

Professional Science Master’s in GIS (MS)

Alex Floeckher was an Enterprise Research Intern with State Farm during his PSM program and recently began working as an election mapping analyst in Denver, Colorado.

Szymon Kaminski served as a LANDvisor digital agriculture intern with Champaign-based Corteva Agriscience and was recently hired there full-time as a geodata processing analyst.

John Palmer was a summer GIS intern with the Champaign County GIS Consortium. He started this February as a GIS engineering technician with Waveguide Fiber, a New Hampshire-based telecommunications company.

Apurva Patil interned with the Digital Design platforms team at Bayer Crop Sciences.

Rongrong Wang served as a web development intern with the CyberGIS Center for Advanced Digital & Spatial Studies. She began working this summer as a Web GIS Developer with Geonamic Systems, Inc., an oil and gas pipeline software company with offices in Atlanta and Houston.

Tianyang Xu interned with Dr. Ziqi Li, developing multiscale geographically weighted regression models.

Doctor of Philosophy (PhD)

Fikriyah Winata began this fall as a tenure-track assistant professor in the Department of Geosciences at Mississippi State University. Dissertation: “Health and Wellbeing Geographies of Female Domestic Workers: Understanding Space-Time Constraints and Access to Health-Promoting Places and Social Networks.”

ALUMNI SPOTLIGHT

Charles Fogelman (PhD, 2017) Wins on Jeopardy!

By Ethan Simmons, the News-Gazette



The most stressful part of Charles Fogelman's appearance on "Jeopardy!" came while watching it at home with his family. Despite knowing the outcome, the pace of the clues — and how many he'd forgotten about since filming the session two months prior — kept the viewing fresh.

"Watching it transpire on TV, it was new to me. The only clues I remembered were the ones I was kicking myself for missing," he said after the show aired on Wednesday, February 16th.

In the end, the inertia of the game took over. Fogelman consistently plucked the names of countries, Greek letters, and obscure adverbs from his memory banks and came out on top in his first appearance, earning \$10,500.

"I didn't regret anything, that I'd bet too low on a 'Daily Double' or hadn't rung in something that I thought I knew but wasn't a hundred percent sure of," he said. "I really succeeded in having fun and playing to win. There were even a couple times I was impressed with myself for getting something right," he said.

Fogelman grew up in Glenview, Illinois, and graduated from Marquette University in Milwaukee in 2003. After that, he volunteered for the Peace Corps with his wife Stacey McKeever in Lesotho, a mountain kingdom surrounded by South Africa, which leads to the anecdote he shared during the episode.

While living in New York in the late 2000s, he caught word that Lesotho's Queen 'Masenate Mohato Seeiso was attending Columbia University, so they invited her over for dinner using her email address listed in the school directory. They also invited other Peace Corps volunteers and served their royal guest with classic Lesotho cuisine including pumpkin, potatoes, and lamb.

"It was probably her first and last time in a tiny Harlem walk-up apartment, but she definitely enjoyed her visit," Fogelman said.

As for his appearance on the long-running game show, the geographer's path has been more than a decade in the making. He'd always watched the show as a kid and got the chance to audition about 15 years ago at the Waldorf Astoria in New York. One issue: he auditioned the day after running his first marathon.

"I was totally beat and couldn't form a whole sentence, much less sound smart," he said. "It didn't go very well."

Then, last summer, a second chance arose: an Instagram advertisement calling for professors who hoped to be on "Jeopardy!" He took the initial test — "very much like actual 'Jeopardy' questions" — then another, did a formal audition over Zoom and got an official invitation to the show in November. His appearance, filmed Dec. 13, was a hard-fought match with continuing champion Dave Rapp, a California writer, and Emily Budd, a customer-service rep from Rochester, N.Y. But Fogelman kept a steady lead and finished each round with the highest dollar value.

He selected and nailed the first two "Daily Doubles" of the game: a phrase that appeared four times in a famous 1963 speech ("I have a dream"), and the body of water where North Vietnamese torpedo boats fired on the U.S.S. Maddox ("The Gulf of Tonkin"). Those earned him \$2,500 and \$1,200, respectively. And Fogelman predictably tore up a category called "The Equator," naming four territories in succession and earning \$5,600.

"The geographer did very well with that category," host Ken Jennings quipped.

ALUMNA PERSPECTIVE

Imelda K. Moise (MS, '07; PhD, '12; MPH, UIS, '15) is associate professor and director of Global Health Studies at the University of Miami, where she also holds secondary appointments in the Departments of Public Health Sciences and International Studies and is affiliated with the Ecosystem Science and Policy Center. She is a Fulbright specialist and serves on various advisory boards including the National Association of County, City and Health Officials Vector Working Group and the Miami-Dade Refugee Task Force. At UMiami, Moise teaches courses on sustainable food, immigrant and refugee health, and health and environmental applications of GIS.



apart from preventable diseases. I knew I had to start addressing health issues, particularly equal access to healthcare in Sub-Saharan Africa. My undergraduate mentor, Dr. Patricia McDowell, had deep empathy and let me know that there was a subdiscipline of geography called health geography that I should consider as I applied for graduate school, which would allow me to build on my current environmental and GIS interests and contribute to global public health. While at UIUC, I worked with amazing advisors Drs. Kalipeni, McLafferty, and Wang from GGIS, and Kingsley Allan, Diana Grigsby, and Marilyn O'Hara Ruiz across campus. Although two of my Illinois mentors have sadly passed, Sara, Shaowen and other colleagues continue to be supportive.

What are your current research projects and interests?

My main goal as a scholar has been to bridge the gap between the production of research findings on health inequity and seeking solutions through problem-grounded research. To achieve this goal, I have focused my efforts on three interlinked themes: health behavior and health status among disadvantaged populations and communities; health risks, adaptation, and strengthening public health systems; and urban pests. I collaborate with faculty and non-faculty in the U.S. and in sub-Saharan Africa and my current projects are funded federally and by foundations including NIH, CDC, RWJF, the Spencer Foundation, the Chase Morgan Foundation, and The Children's Trust.

My ongoing research projects include a study to develop and implement a population-based measure that can be mapped geographically to study school readiness and community factors that contribute to resilience over time in targeted Miami-Dade County areas; and prospectively and longitudinally assessing the impact of cumulative greenness exposure on metabolic syndrome among Hispanic/Latinx populations in Miami and San Diego.

What is your favorite memory of living and studying in Champaign/Urbana?

My favorite memories of living and studying in Champaign/Urbana are many. On campus, I enjoyed meeting friends and colleagues during Friday student happy hours at Murphy's and attending departmental colloquia and brown bag talks, which helped with professional development and presentation practice. Around town, I always looked forward to the Urbana Sweetcorn Festival and Jarling's custard each summer. I am forever grateful, blessed, and a better scholar, teacher, and mother because of UIUC, the department, and your support!

What first drew you to the field of geography?

I started college as an environmental studies major at the University of Oregon and was interested at that time in understanding why humans destroy natural resources even when they know their livelihoods depend on them. I have always had a passion for understanding how humans, local governments, and industry relate with the natural world, as well as in empowering others to live a healthier life. During my sophomore year, I was searching for classes and saw a geography course on historical and contemporary views of the environment. I loved it and declared geography as a second major. I was also fortunate to have received scholarships that allowed me to work with professors on yearlong research projects and eventually publish my first article. For example, I spent summers on a Native American reservation in eastern Oregon conducting river transects for the tribe as they tried to restore mussels to local streams, and conducted a study with residents along the Umatilla River to understand how they coped with living in a flood-prone area.

Up until senior year, I thought I was going to be a fluvial geomorphologist. But this changed when two of my elder brothers died suddenly and unexpectedly just a few months

CAREER CONVERSATIONS

Alumni Share Job Experiences and Advice with Current Students

Public health, infrastructure, and geospatial data management

By GIS majors Julia Cogan, Katie Niemann, and Zimo Xiao (BS, '22)

As members of the Epsilon Epsilon chapter of the Gamma Theta Upsilon (GTU) Geographic Honors Society, we had the privilege of organizing the Spring 2022 Alumni Career Conversations series. It was a great opportunity to meet virtually with alumni and learn about their experiences as we prepare to start our own professional journeys. We heard from alumni working in public health, enterprise IT consulting, and critical infrastructure maintenance.



Kevin Berg (MA, '12) is a data scientist at the Colorado Department of Public Health and Environment, specializing in spatial epidemiology. "As GIS researchers, or with data science in general, your job is to analyze the data and communicate complex information in a way that is understandable to a wide variety of audiences," said Berg.

Reflecting on his academic path and the first decade of his career as a GIS researcher, Berg encouraged students to take applied statistical courses and build a foundation in programming languages such as R, Python, and SQL. He also suggested gaining hands-on data analysis experience through internships and undergraduate research.

Zimo Xiao (BS, '22; computer science + GGIS), a senior at the time of Berg's talk, was inspired to seek out data science-related jobs that intersect with spatial analysis. "Kevin's story, research, and suggestions have inspired me to explore careers in many different industries such as epidemiology, logistics, and business analysis. He pointed out that many data science jobs don't even include the word 'GIS' in their job description, yet they can involve spatial analysis skills and methods that I have gained from my GGIS coursework," said Zimo.



Samuel James (BS, '19; ESES and GGIS) returned for his second GGIS career conversation and spoke about his new position as solutions engineer with Axim Geospatial, an IT services and enterprise consulting firm. James uses geospatial and data management techniques to support a wide variety of clients, ranging from the

federal government to small businesses. He attributes his success to a diverse educational background and encouraged us to explore our interests.

"Every day looks different and every project is different, but I really enjoy it," said James. "You have to be good at time management. You also need to have confidence. Often, even if you're not the expert in something, the client expects you to be so you have to be adaptive and willing to keep learning and exploring new things."



Esther Lin (BS, '21; GGIS) recently began working as a GIS analyst with Southern California Gas Company, where she uses a variety of geospatial software to develop gas line location services and solutions. Lin started her career fresh out of college and is the youngest amongst her coworkers. "If you're new, don't be scared to reach out to

people and ask for help. Understand that the people who are already working there are just so focused on their job that they forget about the new people unless you reach out to them," Lin said.

She shared how GGIS courses including "Introduction to Geographic Information Systems" and "Spatial Problem Solving" opened her eyes to the power of GIS and recommended that we apply for departmental scholarships. "The Roepke Scholarship really strengthened my CV and set me apart from other candidates," she said.



Valerie Nelson (BS, '22) was as a water system GIS/GPS intern for the city of Batavia, Illinois, in Spring 2021 and shared advice on finding and applying for similar internships. This experience helped her realize that GIS techniques are used in a variety of industries. "Immediately my mind would go to big companies

like Esri, but in reality there are GIS jobs almost anywhere. The range of places you'll find GIS job openings is probably a lot bigger than you think so it is worth looking in many places," said Nelson.

She pointed us to the Illinois GIS Association job center, city websites, and encouraged students to seek out undergraduate employment, internship, and scholarship opportunities. She also shared how important it is to highlight GIS experience, coding languages, and software expertise on our CVs.

Thanks again to our alumni for sharing their experiences, and to Professor Michael Minn for hosting the speaker series. We look forward to continuing these conversations in future semesters!



Roepke Study Abroad Scholarship

Professor Howard Roepke was a geography faculty member from 1955-1985. His estate provided a generous gift to the University of Illinois Foundation that supports and enhances our undergraduate majors' academic and research experiences through the Howard & Ruth Roepke Scholarship endowment.



Jackie Shon (BS, '21)

The Roepke Study Abroad Scholarship supported my Spring 2022 learning experience at VU Amsterdam in the Netherlands. As a geographer, I knew that the Dutch rely on environmental engineering to keep the country above sea level, and while there I heard the expression "God made the Dutch, and the Dutch made the Netherlands."

I didn't know what to expect during my study abroad trip due to the global COVID-19 pandemic, and in fact things kept changing throughout my stay. However, my experience not only revealed the beauty of uncertainty but how relationships can become stronger through shared adversity. The multicultural exchanges I've had, not only with Dutch culture but with other exchange students from all over the world really broadened my perspective on how vast the world is and the opportunities that are available.

While studying geography and GIS, I have always been aware of how important spatial analysis was for making better decisions in the greater scheme of things. Studying abroad in the Netherlands was a great way to connect to a broader network of people and perspectives, and to learn how different cultures experience space.

NEW FACULTY MEMBERS

Specializing in GIS, Community Health, and Cartography

Marynia Kolak, *Assistant Professor*



How did you decide to become a geographer?

I began my undergraduate studies here at UIUC with an interest in environmental sciences but switched to geology after taking several of their field courses. I first learned about GIS on the job as a student research

assistant with the Illinois Geological Survey on campus, and really enjoyed the challenges of analyzing core samples from Southern Illinois and using SQL to wrangle all the different layers of data.

I've always been interested in how humans relate with the environment, though, which became clearer on a study abroad trip to the Galapagos Islands. The landscape of volcanic rocks became overshadowed by the plight of locals being negatively impacted by both regulations and tourism in complex, intersecting ways.

Still, I pursued a career as a geologist, and went on to intern at the United States Geological Survey in St. Petersburg, Florida.



There, in addition to picking microfossils for climate change research and later using GIS to map coastal areas, I worked on multiple community and science education events. I was alarmed at the discord and mixed communications between scientists and community members on issues ranging from fishing quotas to hurricane impacts and decided to improve my own communication skills by getting a MFA in writing, with the goal of improving understanding of science between various communities.

Of course, things took another turn, and the introduction of critical theories in my writing degree shifted my views further. I began to engage my interest in community development with coding and communications, eventually serving as a city community engagement coordinator at the newly developed Institute for Public Health & Medicine at Northwestern University. I learned from the communities I worked with and identified research gaps in emerging views of public health that required new analytical approaches.

Here my GIS skills returned in high demand, as place is crucial to understanding health, and I found a home to integrate my interests. I learned to code, went to civic tech meetups, and joined hackathons. I pursued an online masters in GIS to further hone my GIScience skills and eventually moved across the country to start my PhD in geography after many nights spent reading academic articles "for fun." Geography integrated my interests and sense of urgency across humans, environments, and modern analytics in the most insightful way, unafraid of bending beyond the boundaries. Public health needs more geography to engage in the complex, intersecting problems we face as a human society.



Students discuss their research on food access in Chicago and the new ChiVes app with Dr. Kolak during Green City Day, May 2022. Photo courtesy of the Manusetto Institute

Raechel Portelli, *Teaching Assistant Professor*



How did you decide to become a geographer?

Two early factors influenced my choice to become a geographer. First, I competed in extemporaneous speaking competitions during high school that required me to stay abreast of world politics, where topics often had a geopolitical focus. After high school, I lived in the Netherlands for a year and a half and got to travel throughout Europe and attend college for marketing and communications. When I decided to return to the United States and go back to school, my experience abroad strongly influenced my decision to take up geography.

What is your favorite geographic topic or concept to teach?

I love teaching portfolio development. In today's job market, it is essential for geography students to have strong portfolios. With increasing interest in visualization and data science as transitional and remote careers, the competition is fiercer than ever. Through portfolio development, students can apply design skills they learn from cartography to other forms of visual communication. The additional skills in web programming also give students more control over their professional web presence. It gives me great pleasure to think they are gaining skills they can apply to other areas of their lives.

Marynia Kolak, *continued*

What is your most memorable field research experience?

My team from the UChicago Center for Spatial Data Science Research participated in Green City Day at the DuSable Museum for African American History this past summer, where we shared **ChiVes** (chichives.com), our newly released free and interactive web mapping application on environmental and social justice indicators, with the South Side community. We had added live air quality summaries from Microsoft research sensors in Chicago, and integrated data streams from multiple partners in the area. I was able to finally meet collaborators and community leaders in person to talk about the challenges ahead, improve the work we were already doing, demonstrate the work to visiting student groups, and make new connections in the fight for a more just future.

What are your current research interests and directions?

My research at the Healthy Regions & Policies Lab centers on how "place" influences health outcomes in different ways for different people. I hope to better understand how structural inequality might be perpetuating social and environmental health disparities, and then develop GIS applications to communicate those results.

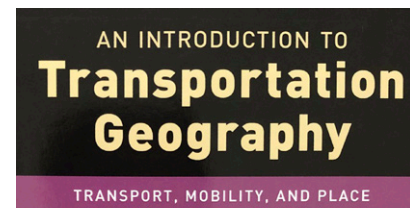
I lead the U.S. Covid Atlas, a county-level exploration of the pandemic and social factors across time that will soon include oral histories to integrate the lived experience of COVID-19. I also have multiple projects evaluating how access to medications for opioid use disorder impacts lives over time, exploring the impacts of stigma and identifying potential intervention spots. Finally, my research will continue developing customized tools to empower communities to engage in exploratory spatial data analysis for evidence-based advocacy and policy support related to environmental justice.

FACULTY NEWS AND HONORS



Assistant professor **Nikolai Alvarado** and assistant professor Magdalena Novoa in urban and regional planning received funding to establish the Latin American and Caribbean Cities Collective at UIUC, a collaborative space for faculty, students, and community members to discuss and reflect on the multiple forms of urbanization and urbanism that

shape the everyday lives of residents in Latin American and Caribbean cities. The collective was one of several initiatives selected for funding through a grant that the Center for Latin American and Caribbean Studies received from the U.S. Department of Education's Title VI National Resource Centers program.



Professor **Julie Cidell** published a new textbook entitled *Introduction to Transportation Geography: Transport, Mobility, and Place* (Rowman & Littlefield, 2021) that explores the individual and societal impacts of past, modern, and possible future transportation systems. The book invites students to consider issues such as transport equity and sustainability, and mobility justice.

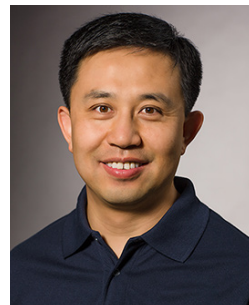


JULIE CIDELL



Assistant professor **Marynia Kolak**, in collaboration with a research team led by DePaul University geography faculty, was recently awarded a \$250,000 NASA grant to work with a Chicago community on an environmental justice project, entitled "Designing for Just Green Enough: A Data Integration Tool for Informing Community Green Space Planning."

Professor **Murugesu Sivapalan** received the Tau Beta Pi Daniel C. Drucker Eminent Faculty Award from the UIUC Grainger College of Engineering. Siva was also elected to the 2021 Class of American Association for the Advancement of Science (AAAS) Fellows.



Professor **Shaowen Wang** received multiple prestigious honors and awards over the past year: He was elected as an AAAS Fellow and received the 2022 American Association of Geographers (AAG) Distinguished Scholarship Honors, which recognizes outstanding contributions to the advancement of geography. The AAG award citation

notes that "his personal scholarship has been outstanding, as has been his leadership of collective activities, his role in acquiring tens of millions of U.S. dollars in funding for research and related activities, his skillful mentoring of students and colleagues, and his efforts to broaden and diversify the current and future scientific workforce. Through his scholarly accomplishments, Wang has demonstrated the value of 'big thinking' and wide-ranging collaboration involving geographers and scholars in a diverse range of other fields."

Wang was also appointed as a 2022-23 Faculty Fellow by the Office of the Vice Chancellor for Research and Innovation to support his participation on the Research Council of the newly established Taylor Geospatial Institute in St. Louis.

Graduate Student Awards



PhD student **Sadiul Chyon** was awarded the UIUC Graduate College Dissertation Travel Grant for his project "Sand and Gravel Mining in Bangladesh: Nature, Extent, and Sustainable Development."



PhD candidate **Wataru Morioka** was awarded the highly competitive Graduate College Dissertation Completion Fellowship for his project "Network Dual K Function: Exact Statistical Methods for Analyzing Co-location on Street Networks and Applications to Living Environment Assessment."



PhD student **Becky Vandewalle** was selected as a 2022-23 Frontera Computational Sciences Fellow by the University of Texas Austin-based Texas Advanced Computing Center (TACC), where she will have access to the world's largest supercomputer to gather and analyze large data sets for her dissertation, tentatively titled "CyberGIS-Enabled Geospatial Agent-Based Modeling for Large-Scale Emergency Evacuation."



PhD student **Yilun Zhao** was awarded a three-year Future Investigators in NASA Earth and Space Science and Technology fellowship for her project "Evaluating the Influence of Biocontrol Program on the Colorado River."

2022 AAG Annual Meeting

PhD student **Yin Liu** won first prize in the Student Illustrated Paper Competition, sponsored by the AAG Remote Sensing Specialty Group, for his poster "CropSow: A Novel Modeling Framework to Estimate Field-Level Crop Sowing Date with Multi-Scale Satellite Time Series."



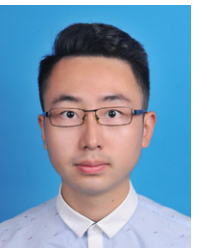
Master's student **Andrea Pimentel Rivera** received a Student Field Study Award from the AAG Latin America Specialty Group, as well as multiple UIUC-based and external awards to support her thesis research on mobility injustice in Puerto Rico: the Graduate College Master's Travel Grant, a Whitten Fellowship from the Center for Latin American and Caribbean Studies, a research grant from the Illinois Research Society, a Center for Latin American Geographers (CLAG) Student Field Study Grant, and a Diversity & Inclusion Fellowship from the Association of Collegiate Schools of Planning.

PhD student **Chelsy Salas** received the Geomorphology Specialty Group Graduate Student Paper Award for her project "Spatial and Temporal Distributions of Suspended Sediment Concentrations from Different Floodplain Geomorphic Environments of a Lowland Meandering River."



Master's student **Lauren Weber** received an Urban Geography Graduate Student Fellowship Award, which supports urban-oriented, graduate-level research. Lauren's funded proposal is "Declaring Surplus, Approving Sale: Redevelopment Logics at the Periphery in Portland, Oregon."

PhD student **Chishan Zhang** took second place in the Student Honors Paper Competition, sponsored by the AAG Remote Sensing Specialty Group, for his paper "County-Level Soybean Yield Estimation Based on Bayesian-CNN Incorporating Phenology Dynamic."



Graduate Student Spotlight



Wataru Morioka is a PhD candidate working with Professor Mei-Po Kwan.

My interest in geography was sparked by the Great East Japan Earthquake in March 2011. I was an undergraduate living in Tokyo and remember the streets being packed with thousands of people after transit operations stopped and rail stations were evacuated. I had to walk a long distance in unfamiliar areas and look at maps to get home, which made me recognize the importance of spatial cognition and map literacy.

A few months later, I took an introductory GIS course taught by Dr. Atsuyuki Okabe and learned about many applications of GIS for disaster management. I was fascinated by these ideas and methods and shared my interest with Dr. Okabe, who invited me to join his research project that used GIS-based methods and human mobility data to estimate usage of temporary evacuation shelters located throughout central Tokyo after a large earthquake. I was able to develop this work into my senior thesis and decided to pursue a graduate degree in geography.

My dissertation research, supervised by Dr. Mei-Po Kwan along with Dr. Sara McLafferty and Dr. Okabe, focuses on analyzing spatial co-location patterns, i.e. subsets of two or more groups of events that are geographically close, on street networks. For example, different types of retail outlets and service firms are clustered together in central districts of cities across the world to take advantage of spatial agglomeration. I am developing a set of new statistical methods to precisely analyze these co-location relationships and hope to measure

people's living environment, such as accessibility to shopping facilities and other public amenities, as a means of enhancing public life.

Teaching GIS is also one of my prime interests. In February, I led a class on GIS and mapping as part of University Laboratory High School's annual Agora Days, where teachers and community members are invited to share their knowledge and present topics of general interest. Eight students joined my class to learn about the longitude problem and how the Global Positioning System (GPS) works. They also got to use the open-source web platform Re:Earth to create maps illustrating historical events and locations around Champaign-Urbana. I hope students discovered how fun geography and GIScience can be after connecting these activities to their community. The Urbana Free Library and Champaign County History Museum also supported this project, providing us with a collection of historical photos and documents to explore and reference. I believe this type of community engagement helps advance geography as a multidisciplinary field.

I have enjoyed several other opportunities to share my skills and passion for geography across the Illinois campus. In Fall 2020, I made maps for history professor Dr. Roderick Wilson's new book *Turbulent Streams: An Environmental History of Japan's Rivers, 1600–1930*, and I helped urban planning professor Dr. Arnab Chakraborty estimate the socio-economic impacts of maintenance-related bridge closure in Los Angeles. After completing my PhD, I plan to continue researching and teaching in higher education and keep pushing the boundaries and possibilities of GIScience.

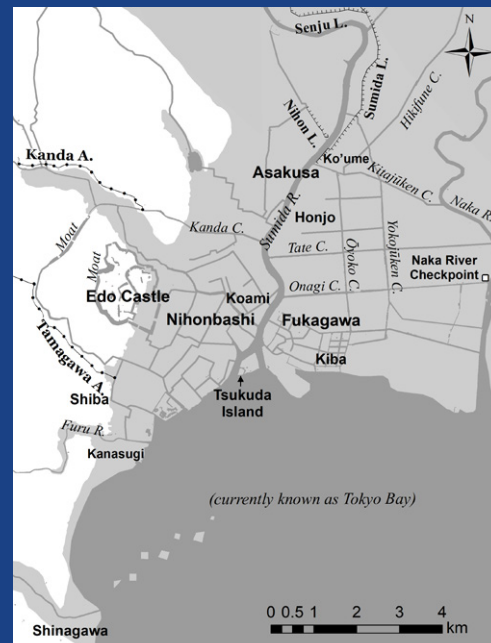


Figure 5 from Dr. Roderick Wilson's *Turbulent Streams* book. Map by Wataru Morioka

NEW GRADUATE STUDENTS

Researching transportation, urban informatics, and housing



Mandela Gadri has BS in urban planning from Kwame Nkrumah University of Science and Technology, Ghana and an MS in community and regional planning from Iowa State University. He also has a certificate in GIS and worked as a planner with the city of Cedar Rapids, Iowa. Mandela is interested in GIS and transportation.

Advisor: Dr. David Wilson



Wei Hu has a BS in geographic information science from Nanjing Normal University, China and a dual MS in data science and environment and sustainability from the University of Michigan, Ann Arbor. Wei is interested in GIS, urban informatics, and GeoAI. She received a prestigious three-year Illinois Distinguished Fellowship from the UIUC Graduate College.

Advisor: Dr. Shaowen Wang

Marina Moscoso Arabía has a BA in anthropology, and master's in urban planning with a minor in urban transportation from the University of Puerto Rico, as well as a master's in urban design from the University of Barcelona. She has researched and worked extensively on the problem of abandoned properties in Puerto Rico, co-founding Casa Taft 169 in 2013 as a grassroots initiative to rehabilitate a long-standing "public nuisance" and Centro para la Reconstrucción del Habitat in 2017, a non-profit dedicated to support public, private, and community efforts to abate blight. **Advisor: Dr. Nikolai Alvarado**



Field Research Postcards

PhD candidate **Nina Roberts** (advisor: Dr. David Wilson) ventured to the American Southwest this spring and summer to conduct fieldwork for her dissertation, tentatively titled "Profit or Peril in the 21st Century City: Climate Change, Gentrification, and the Real Estate State in Flagstaff, Arizona." Her research was supported by the Charles Alexander and George Beatty endowed fellowships for geography doctoral students and she shared these photos and findings from her travels:



San Francisco Peaks

As seen from Flagstaff, Arizona in November 2021, the majestic San Francisco Peaks, at an elevation of over 12,600 feet, are treasured—and visible—throughout the city and well beyond. Flagstaff's

environmental setting within the Coconino National Forest and its proximity to the Grand Canyon have long been major drawing points for tourists, skiers, climate-escapees, and real-estate investors attracted to its high-elevation climate, which in summer can be more than 30°F cooler than Phoenix. The mountains are sacred to the region's Indigenous peoples, whose tribal lands surround Flagstaff and are integral to the region's culture.

Downtown Flagstaff

Flagstaff's historic – and gentrified – downtown is seen here in November 2021. The buildings in this photo stand along the famous Route 66, the "Mother Road" connecting Chicago with Los Angeles.



Villas

While some residents live in these "villas" near Flagstaff's Continental Country Club permanently, a large percentage of the condos are reserved for vacation rentals. An estimated 25% of homes in Flagstaff are either investment properties or second homes for out-of-towners and sit empty most of the year, creating a housing scarcity that drives prices ever higher and makes living in the city increasingly unaffordable.





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Leaving Flagstaff, Arizona. Photo by Nina Roberts

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