DEPARTMENT OF

GEOGRAPHY & GEOGRAPHIC INFORMATION SCIENCE



CyberGIS Center to Host New \$15M NSF Institute Focused on Sustainability Challenges

By Dave Evensen and National Science Foundation

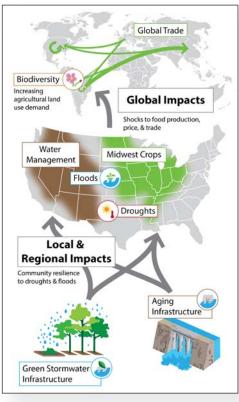
new national initiative to enable geospatial data-driven scientific discovery will create a \$15-million institute at the University of Illinois Urbana-Champaign to better understand the risks and impacts of climate change and disasters.

The Institute for Geospatial Understanding through an Integrative Discovery Environment (I-GUIDE) will receive the funding over five years as part of the National Science Foundation (NSF)'s Harnessing the Data Revolution, which establishes five institutes across the United States to explore questions at the frontiers of science and engineering.

"The goal of I-GUIDE is to revolutionize theories, concepts, methods, and tools focused on data-intensive geospatial understanding for driving innovative cyberGIS and cyberinfrastructure capabilities to address the most pressing resilience and sustainability challenges of our world such as biodiversity, food security, and water security," said **Shaowen Wang**, head of the Department of Geography & Geographic Information Science and founding director of the CyberGIS Center for Advanced Digital & Spatial Studies, who will lead the institute.

(Continued on next page)

A graphic illustrates some of the issues that will be addressed by I-GUIDE. Image courtesy of Shaowen Wang.



Celebrating Dr. Sara McLafferty's Retirement

By Sandy Wong (PhD, '17) and Matt Cohn

r. Sara McLafferty has retired from the University of Illinois after a distinguished 20-year tenure. Sara joined the department as a full professor in 2001, served as associate head from 2004-2011, department head from 2012-17, and director of undergraduate studies from 2019-21. As head, Sara facilitated many important milestones for the department including the establishment of a bachelor of science degree option, the launch of our Professional Science Master's (PSM) program, and our move from Davenport Hall to the Natural History Building (which required a four-year layover in the Computing Applications Building).

A global leader in health and medical geography, Sara has dedicated her research and teaching to understanding how the places where we live, work, and play affect our health and well-being. She has single authored, co-authored, and co-edited more than 100 publications including peer-reviewed journal articles, books and book chapters, and non-refereed publications that have collectively strengthened the disciplines of geography and geographic information science.



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From the Department Head

Greetings,

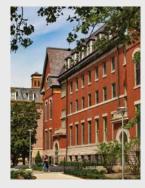
I write this at the conclusion of a warm and cheerful Illinois Homecoming week: our department had the honor of hosting this year's distinguished alumnus Dr. William Clark. We had a great time celebrating his incredibly amazing career and it reminded me that our alumni have made and continue to make tremendous positive impacts around the world.

As you may know, our campus has returned to in-person operation this fall and I can tell that our students are so excited to be fully engaged again in learning and research. The University of Illinois has served as a role model for higher education in the U.S. with its COVID-19 response, and our faculty and staff have stepped up to deliver leading-edge research, world-class education, and engaging community service. As a recent example, Professor Chunyuan Diao won a prestigious National Science Foundation (NSF) CAREER Award. I know from my own experience that the NSF CAREER program is extremely competitive. Winning this award is an important signifier of Chunyuan's achievement and ongoing potential.

Despite uncertainties in multiple dimensions, Geography & GIS continues to thrive. Most notably, the CyberGIS Center for Advanced Digital & Spatial Studies has recently won an NSF award to create the Institute for Geospatial Understanding through an Integrative Discovery Environment (I-GUIDE), a \$15-million national institute that will harness the geospatial data revolution to better understand the risks and impacts of climate change and

disasters. You can read more about this exciting development on the cover of this issue.

In addition to celebrating department-level and alumni achievements, our alumni, students, faculty, and staff gathered this past August to celebrate Professor Sara McLafferty's retirement. Sara made numerous fine contributions to our



Natural History Building

department and achieved a long-distinguished career.

Please let me know if you plan to visit campus – we always look forward to hosting visitors at the beautifully renovated Natural History Building. My best wishes for your coming holiday season and sincere thanks to those of you who have donated to our programs and funds. Your generous support enables us to further our excellence in new and creative ways. Please see the back cover of this issue or visit **ggis.illinois.edu/giving** for details. Keep in touch!

All the best, **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.

I-GUIDE, continued

I-GUIDE collaborators and partner institutions from around the country will work with the CyberGIS Center in partnership with the UIUC Institute for Sustainability, Energy, and Environment and the U of I System's Discovery Partners Institute.

"We're thrilled that the National Science Foundation has established I-GUIDE in the CyberGIS Center," said Venetria K. Patton, Harry E. Preble Dean of the College of Liberal Arts & Sciences. "This is a wonderful example of the many ways that LAS leads research and interdisciplinary collaboration that brings together talented colleagues from across campus."

I-GUIDE aims to drive transformative advances across many fields from computer, data, and information sciences to atmospheric sciences, ecology, economics, environmental science and engineering, human-environment and geographical sciences, hydrology and water sciences, industrial engineering, sociology, and statistics.

I-GUIDE "creates a novel geospatial discovery environment for synthesizing data on geographically referenced social, economic, ecological, and environmental factors to better understand the risk and impacts of climate change and disasters," the NSF reported in a press release.

Wang added that "I-GUIDE nurtures a diverse and inclusive geospatial discovery community across many disciplines by bridging disciplinary digital data divides with broader impacts amplified through a well-trained and diverse workforce and proactive engagement of minority and underrepresented groups."

"Through the leadership of the CyberGIS Center, in collaboration with other fantastic researchers on campus and around the country, I-GUIDE will make great strides in helping to secure the future of our communities and resources," said UIUC Chancellor Robert Jones.

2021 Distinguished Alumnus William A.V. Clark (PhD, '64)



From left: Shaowen Wang, William A.V. Clark, Bruce Rhoads (GGIS Awards Committee Chair)

William A.V. Clark is professor emeritus of geography at the University of California, Los Angeles. He is truly an outstanding scholar, recently recognized with the American Association of Geographers 2018 Lifetime Achievement Award. Professor Clark is a member of the National Academy of Sciences, the American Academy of Arts and Sciences, and was a 1994 Guggenheim Fellow. He also received a College of LAS Alumni Achievement Award in 2006.

Clark's research contributions are extensive, but his main interest is in urban geography, particularly housing choices, residential mobility, and residential sorting; patterns of segregation and the social organization of cities, and migration and labor market outcomes.

He returned to campus on Friday, October 8th, to accept the Distinguished Alumnus Award and present his talk "Thomas Schelling, Social Distance, and Sorting" during our colloquium series.

Alumni Career Conversations with GGIS Majors

By Matt Cohn

wo recent geography & GIS alumni visited the department (virtually) this past spring to share their academic and early career experiences and advice with our current undergraduate majors.

Samuel James (BS, '19; ESES and geography & GIS) began his undergraduate studies in the architecture program but transferred to the earth, society, and environmental sustainability (ESES) major during his second year and discovered geography & GIS through an introductory GIS course.



"I was initially kind of nervous because at that point I was not a confident coder, but I immediately fell in love with visualizing data and extracting meaningful data from it. After that, I decided to double-major," said James.

He encouraged current GGIS and CS+GGIS majors to look beyond

the term "GIS" while searching job and internship postings. "A lot of jobs that utilize geospatial data techniques might not have 'GIS' in the job title or description. If you're really looking to apply geospatial thinking or location intelligence, I recommend thinking more broadly and find coding or programming positions," said James.

James interned with the village of Mahomet from Summer 2018 through the 2019-20 academic year, helping map their storm sewer network and track land parcel transactions. He made personal and professional connections there that ultimately led to a job with Champaign-based internet service provider Pavlov Media right after graduation. He also started an independent GIS consulting business.

"Pavlov is not directly focused on GIS but it is integral to their operations. While there, I worked with municipal governments, railroad authorities, and departments of transportation to create plans and layouts to permit fiber optic infrastructure. I used a lot of applications and processes that I first learned during my time as geography & GIS major," he said.

(Continued on page 7)

Congratulations to the Geogra

Fall 2020, Spring 2021, and Summer 2021 bachelor's, master's, and doctoral degree earners and campus-level award recipients

Bachelor of Arts / Bachelor of Science (BA/BS)

Jessica Alexandra Angel James M. Boylen Christopher Saint Buckley Mateusz Cikowski Prit Vishnuknumar Delada Yessica Ivette Dominguez Nicole Ann Duda Emmanuel Estrella Mingyang Gao Hugo Guerrero Qinyu Hu Deja Dominique Jackson Matthew Robert Jacquot Benjamin Keats Sean P. Kenny Minkyu Kim Sae Hee Lee

Esther Lin
Jonathan Tyler Lincheck
Lionel Douglas Lusardi
Justin Donald Mansfield
Paisley Ann Meyer
Edward Charles Pearson
Isaak Lawrence Simmers
Chenkai Wang
Jason Tyler Webb
Xiaoqiu Xu
Yiheng Zhou

University Bronze Tablet Honoree

Yiheng Zhou

College of LAS James Scholar

Jessica Angel

Master of Arts (MA)

Erica Massey

"Addressing emergency preparedness inequality at an individual scale: A case study of Hurricane Harvey"

Master of Science (MS)

Weiye Chen began his PhD studies at the University of Maryland Department of Geographical Sciences this fall.

"WhereTesting: A CyberGIS Framework for the Location and Allocation of COVID-19 Testing Sites" Sadia Sabrina began this spring as an Ecologist GIS contractor with the U.S. Geological Survey's Northern Prairie Wildlife Research Center.

"High-resolution spatial and temporal evolution of two-dimensional flow structure at a small stream confluence"

Bin Su started this year as a data scientist with Kuaishou, a popular video platform in China. *Non-Thesis*



phy & GIS Class of 2020-21

Professional Science Master's in GIS (MS)

Renke Ji completed her internship with Urban GIS in Chicago and began a PhD program at Wuhan University in China this fall.

Yerrasyl Koshan was a GIS & augmented reality (AR) intern with Dr. Shakil Kashem and began a PhD program in geography at Purdue University this spring.

Michael Li was a 2020 geospatial intern with bp and began working there full-time as a geospatial data specialist.

Ethan Liang was a web development intern with the CyberGIS Center and began this April as a research associate with the Mississippi State University Department of Wildlife, Fisheries, and Agriculture.

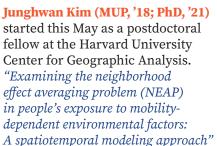
Aidos Makhanov completed his summer 2020 internship with John Deere, serving as a GIS analyst.

Sijia Wang was an AR intern with Dr. Shakhil Kashem. This fall, he enrolled in the master of urban planning program at The University of North Carolina, Chapel Hill.

Xu Zhang completed his PSM summer internship with Motorola Solutions and began working there full-time as a software developer.

Doctor of Philosophy (PhD)

Aída Guhlincozzi (MA, '18; PhD, '21) has joined University of Missouri's women and gender studies and geography departments as a Preparing Future Faculty Postdoctoral Scholar. Dissertation: "Latina health geographies and intervening community-based organizations in the Chicago suburbs"



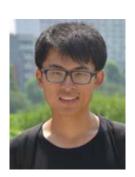




Dong Liu (MS, '20; PhD, '21) began a Postdoctoral Associate position in the Human Environments Analysis Laboratory & Department of Geography and Environment at the University of Western Ontario in Canada.

"Multi-faceted measurements of job access inequality for transitbased workers"

Rea Zaimi (MA, '16; PhD,'20) began this spring as a Postdoctoral Associate at Georgia State University's Urban Studies Institute. "Reconfiguring racial regimes of ownership: vacancy and the labor of revitalization on Chicago's South Side"





Alumna Spotlight Darla Munroe (PhD, 2000)



Darla Munroe (PhD, 2000) is professor and chair of geography at The Ohio State University. Her research covers economic, social, and land use geography with a focus on human-environment interactions at a landscape level. While at Illinois, she was a graduate research assistant with Professor Geoff Hewings' Regional Economics Analysis Lab and with the Ecological Processes Division of the U.S. Army Construction Engineering Research Lab.

I was always fascinated by how diverse the world really is, wanting to understand people and places far different from those I found familiar. I obtained a double major in Economics and International Affairs and a Master's in Applied Economics from the University of Michigan because I planned to go work at the World Bank. But then I decided I wanted to research further into the promise and pitfalls of applying (simple) development models to diverse institutional settings, and so I came back to geography – which I remember as being transdisciplinary, sensitive to context, and historical. I came to UIUC because it was a doctoral program that encouraged interdisciplinarity and I crafted a program that included a graduate minor in urban and regional planning and agricultural and consumer economics.

I was fascinated by post-socialist transitions in Central and Eastern Europe, and specifically how they were transforming rural land systems. I chose to focus on Poland because there was a strong tradition of private farm ownership – they had resisted postwar efforts toward collectivization and the country still bore distinct regional administrative legacies from prior imperial powers (Russia, Austria, and Germany).

For the first time I was exposed to geographic information systems and spatial analysis, and I used these tools to explore lasting structural differences in agricultural land-use patterns as farms continued to orient production to new markets. I also learned peasant studies frameworks to analyze farm operator data to classify farms according to their degree of market openness, and I studied political ecology insights on how patterns of land degradation at a farm level require attention to multiple scales of influence and constraints on farmers from markets, state policy, and other institutions.

A few years ago, two other Ohio State University geography faculty and I took a group of 25 undergraduates to visit an open-pit coal mine in southeastern Ohio. This former underground mine was being "remined" via massive earthmovers whose wheels were larger than a pickup truck. The pit was a huge, artificial "canyon" in the landscape, invisible from the road due to a thin line of trees. We were so lucky to have the coal mine operators give us a tour because a master's student we had hired from that rural county had a personal connection to the mine supervisor. We climbed up a ridge, stood at the edge of the pit, and gaped at the heavy machinery and noise far below us as the yellow machines methodically scraped out the next line of earth to be sifted for any remaining coal.

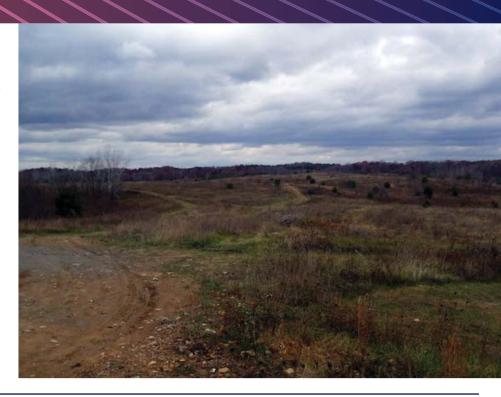
After the tour, there was stunned silence in the van as we attempted to debrief students. Finally, one young woman blurted, "I was expecting a museum with a gift shop!" As we all reflected on what geographic imaginaries students had before the field trip as to what "visiting a coal mine" constituted, I realized how much we "city-dwellers" live in landscapes of consumption. Meanwhile the landscapes of production that are quite literally keeping the lights on remain so alien without a conscious effort to reach them.

I have a lasting interest in farmland abandonment in Europe and now also the Americas, and its relationship to urban-rural dynamics: how broader industrial changes and global production networks shift the abilities of regions and local peoples to sustainably manage their lands. Large-scale land acquisitions are increasingly enrolled into trends of big finance. Through my work with the Global Land Programme

(www.glp.earth), I have collaborated with other scholars to develop conceptual models that describe our current global land systems as unsustainable and unjust.

For the last decade, I have also been working very locally in Appalachian Ohio, with a study area just two hours away, but one that spans a cultural divide. I work with colleagues to understand how rural forested communities in the northeastern U.S. respond to past shocks and crises by reorganizing forest-production relationships in ways that can be win-win for economies and forested ecosystems.

This reclaimed land in New Straitsville, Ohio was once the site of the world's largest coal mine fire, which burned from 1884-1938. Photo courtesy Darla Munroe.



Alumni Career Conversations, continued

James left Pavlov Media earlier this summer to begin working as a solutions engineer with GISinc, a company that manages GIS functions for utilities, airports, public works, and many other location-based entities.

"I really liked the campus and made a lot of great friendships in Champaign, so it made sense to stay here and start my career. Building strong relationships with people on campus and in the community helped me grow personally and professionally as I transitioned from school to full-time work and when I began consulting," he said.

Jackie Shon, a senior also double majoring in GGIS and ESES, gained valuable insights from Sam's talk and Q&A session.

"Samuel's career conversation aligned with a lot of my own interests in GIS. After hearing about his career experience, and what he wished he had learned more about as an undergraduate, I signed up for GEOG 489: Programming for GIS. I'm glad I took the course because it built my confidence with coding and showed me how powerful GIS can be with some added computer science knowledge," said Shon.

Adam Camp (BS, '19; geography & GIS, political science) applied directly to four Big Ten undergraduate geography programs and ultimately chose UIUC for its emphasis on student research. During his career conversation, he encouraged students to connect with faculty members and apply for Roepke scholarships to assist them with data collection and research. Camp gained valuable internship experience as an undergraduate but warned students that the onboarding process for certain geospatial jobs can be quite involved.



Adam Camp

"Apply early, especially if you are thinking about entering the Intelligence Community or the National Geospatial Agency (NGA) within the Department of Defense. The internship program is an awesome foot in the door but the process of obtaining a clearance can take months," said Camp. He completed his NGA internship in St. Louis and was hired full-time after graduation.

"The rigorous coursework offered by the department of Geography & GIS equips students for any entry-level work in the field but there's always room to improve your skill set on the job. I was just selected by NGA to obtain a master's degree and am excited to fine-tune my programming and GIS skills to return as a Geospatial Analyst."

Jackie Shon is considering public sector and community-focused career options and appreciated Adam's talk as well. "Adam inspired me to apply for a local government internship over the summer and I had a great learning experience."

McLafferty retirement, continued

Sara's work highlights inequalities in access to health services, disparities in maternal and infant health outcomes, and wage and commute gaps due to spatial mismatch among marginalized populations in the U.S., including women, racialized minorities, immigrants, and people with disabilities.

GIS and Public Health, her book co-authored with Dr. Ellen Cromley in 2003, is widely recognized as the first comprehensive text on how GIS can be used to answer critical public health questions. A second edition was published in 2011 and it continues to serve as an important reference, with nearly 1,300 citations (Google Scholar).

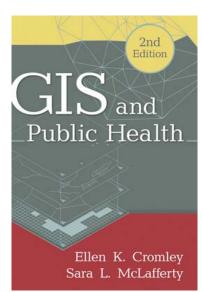
She has received numerous awards for her significant contributions to geographic research, mentorship, and service. Most recently, she was named an American Association of Geographers (AAG) Fellow in 2020 to recognize her critical advancements in health, economic, and urban geography. She also received the Melinda S. Meade Distinguished Scholarship Award from the AAG Health & Medical Geography Specialty Group in 2015.

Sara continues to be an outstanding mentor of students and early career academics from diverse backgrounds, including those who are underrepresented in GIScience. In 2020, she received the University Consortium for Geographic Information Science Carolyn Merry Mentoring Award. For Sara's exceptional service to the discipline, she was honored with the Anastasia Van Burkalow Distinguished Service Award by the Department of Geography at Hunter College in 2014, and the Meritorious Service Award by the Society of Women Geographers in 2002.

Sara taught courses on spatial analysis, multivariate geographical statistics, GIS and society, and the geography of

healthcare. She was always highly regarded by students and took on the admirable task of regularly updating her course materials to include the latest software and methods. Throughout her career, Sara taught students how to use SPSS, SAS, Stata, ArcGIS, ArcGIS Online, GeoDA, and R Studio, to name a few!

This past August, the department hosted a two-day celebration of Sara's retirement including an online and in-person event. On Thursday, August 12, Sara's longtime colleagues, current



and former PhD advisees, and GGIS faculty and students gathered on Zoom to share their thanks and appreciation of her impact on their own careers and on the discipline of geography. The next day, faculty and students from GGIS and the other SESE departments gathered in person at the Natural History Building for the first time since March 2020 to share gratitude and memories with Sara and present her with a plaque and gifts.

Sara's plans for the next chapter of life are evolving. She is continuing her research with several papers and projects in the pipeline, and maintains various editorial, advising, and service commitments. She also looks forward to spending more time with family and friends. Even in retirement, Sara's impact on the geographic community will be felt for years to come.

Faculty News and Awards



Assistant professor Chunyuan
Diao has been awarded a National
Science Foundation Faculty Early
Career Development Program
(CAREER) Award for her project
entitled "CAREER: Scalable
Remote Sensing Computational
Framework for Near-real-time
Crop Characterization." She
also received a NASA Early
Career Investigator Award in
Earth Science.



Professor **David Wilson** was named a Center for Advanced Study 2021-22 Associate.

Read more about his project
"Third-Wave Gentrification and
the Plight of Chicago's South Side"
at: cas.illinois.edu/index.php/
person/david-wilson

Howard Roepke Undergraduate Research Scholars

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.



Piper Siblik Class of 2024

During the Spring 2021 semester, I participated in two projects with Professor Piotr Cienciala's lab, both involving the further development of watershed data sourced from Southeast Alaska

and Western Canada. The first project seeks to understand the relationship between carbon storage and transfer in the temperate rainforests of Southeast Alaska and the second project involves the analysis of rivers to be applied to endangered bull trout habitat restoration along the coast of Western Canada. My role as research assistant required downloading, processing, and analyzing GIS data.

I utilized many different GIS techniques throughout the course of this project. One that I had not had experience with before was the hydrology toolbox in ArcGIS Pro. Using different tools in this toolbox, I was able to create partial watersheds that were unique to our project and data. I also created several unique shapefiles consisting of combinations of watersheds and river data for areas of interest. This data processing allowed us to narrow our scope, visualize the areas that we were interested in, and analyze the areas using land use and climate data.

These projects have deepened my passion for applying geospatial analysis to environmental concerns. I am incredibly interested in the ways that spatial data can assist in the expansion of restoration and conservation goals and hope to develop these interests into a career in the geographic and ecological fields.



Zimo Xiao Class of 2024

In spring 2021, I worked with Professor **Shaowen Wang** and Professor **Anand Padmanabhan** to design a scientific middleware for high-performance and dataintensive geospatial research and education on CyberGISX. The CyberGIS-Compute project is part of the CyberGISX geospatial cyberinfrastructure ecosystem that aims to simplify the process

of working with large-scale computing resources such as supercomputers in a research setting.

I am fortunate to lead the project in design and development. As a Computer Science + Geography & GIS (CS+GGIS) major, the project provided me with a unique opportunity to learn how different GIS research projects are conducted by working closely with scientific computing engineers and geospatial scientists from organizations and programs such as Hydroshare, Geospatial Fellows, and the CyberGIS Center for Advanced Digital & Spatial Studies.

With their assistance, I walked through the research process of projects ranging from hydrology to artificial intelligence, learning the techniques that technologically skilled researchers apply when working with large-scale research. From them, I also got to understand the technological barriers that GIS and geography researchers face when trying to scale their projects to work with more diverse datasets. With the help of my community and professors, I designed a software architecture that allows geospatial research to scale with a few lines of code. With revisions and prototyping, the newest version of CyberGIS-Compute is now gradually being used in geospatial research and education in different labs.

The Roepke research experience helped me discover a research path involving my computer engineering background and my passion for GIS research, giving me a unique opportunity to explore different research directions that apply technologies such as big data, AI, the internet of things (IoT), and parallel computing into GIS research. A Roepke scholarship expanded my horizon in GIS research and encouraged me to pursue GIS research as a future career.

Graduate Student Spotlight



Fikriyah Winata is a PhD candidate working with Dr. Sara McLafferty. She earned a bachelor's degree in geography from the University of Indonesia and a master's in geography here in 2018. During her time in Illinois, Fik has been involved in various research, teaching, and community activities and has frequently appeared on the campus list of Teachers Ranked as Excellent by Their Students.

Around 2002, when I was in middle school, my geography teacher Ibu Sudji asked me to teach a lesson on the regional geography of America. I was surprised because she asked me to teach my friends in the same grade! It was fun showing them different locations in the United States on the maps. I excelled in geography in middle and high schools but was also interested in public health. My cousin had a clinic at home and I used to help nurses and midwives care for patients.

I decided to apply for public health and geography programs for the national college entrance exam. I did not get into the public health program but did get accepted into geography, where I began learning many geographic concepts and applications. Geography definitely expanded my horizons but I still dreamed of studying public health. Years later, I came to Illinois and met Drs. Sara McLafferty and Marilyn O'Hara Ruiz. After talking to them and taking their classes coupled with other health and epidemiology

classes on campus, I knew I could also pursue public health. Most importantly, now, I can apply geographical approaches to public health. It's such a great feeling after having to wait 10 years!

I consider myself a health geographer with wide-ranging GIS expertise. My research interests include health and wellbeing geographies, healthcare and healthy food access, and spatial epidemiology. For my dissertation, I am studying Indonesian female domestic workers (FDWs) in Hong Kong, particularly their relationships with places and social networks that affect their health and wellbeing. FDWs, especially in the Asian context, experience significant space-time constraints during their working days. Their mobilities are primarily dictated by work tasks; the opportunity to visit public places during a day off may significantly contribute to their well being.

My fieldwork was heavily affected by the COVID-19 pandemic, especially due to Hong Kong's border closure and other travel restrictions. Thankfully, I was able to adjust my data collection methods and collected activity diaries, semi-structured interviews, and surveys remotely. It was wonderful speaking with 31 FDWs on Zoom and communicating with 42 FDWs to record their activity diaries. On my health and wellbeing survey, I am grateful that 190 FDWs responded. Although I could not meet them in person, I learned so much from their life stories.

After presenting my research on Indonesian FDWs in Hong Kong at several conferences and symposia, I became more confident that my topic is truly important. Indonesian FDWs are an understudied population and their lives could get more attention through my study, especially their health and wellbeing. For instance, in Hong Kong, the government regulates a mandated rest day in which each employer should provide their domestic workers a day off after seven days of working. In contrast, many other countries in Asia and worldwide still do not have such a mandate. With my evidence from Hong Kong, I hope to inform the world that if governments mandate a rest day, it may improve FDWs health and wellbeing. I hope more countries in the world will give more attention to people who are working under certain circumstances and restrictive mobilities.

I am hopeful about a career in academia and becoming a health geography professor, and plan to continue my research on FDWs from different and new research intersections. Also, I want to continue my international research and expand research on food access in Chicago. Research, teaching, and community service are all so important and I'm excited to be on this path.

New Graduate Students











Duncan Anderson has a bachelor's in environmental technology and management from NC State University. He recently spent a gap year working as a GIS specialist at the North Carolina Coastal Reserve. Duncan's research interests include remote sensing, geospatial analysis, and environmental change.

Co-advisors: Piotr Cienciala and

Mark Lara

Poushalee Banerjee received her bachelor's in geography and a master's in geography with a specialization in river science from Presidency University, Kolkata, India. Her research interests include fluvial geomorphology, river management and restoration, GIS and remote sensing. Co-advisors: Bruce Rhoads and Alison Anders

Wengu Chen has a bachelor's in GIS from the Northeast Forestry University, China and a master's in GIS from Clark University, Massachusetts. Her research focuses on ground-based monitoring, aerial/satellite remote sensing, and empirical/machine-learning/ process-based modeling. Advisor: Mark Lara

Tianci Guo has a bachelor's in remote sensing science and technology and a master's in photogrammetry and remote sensing from Wuhan University. She is interested in intelligent agriculture and computational remote sensing. Advisor: Chunyuan Diao

Matt Hiett has a bachelor's in geography and history from Augustana College in Rock Island and a master's in urban planning from UIUC. He is interested in urban morphology and its relation to non-physical conceptions of space. Co-advisors: Julie Cidell and David Wilson





Chang Liu earned his bachelor's in engineering from Wuhan University, where he majored in remote sensing science and technology. Now he is studying GIS.

Advisor: Shaowen Wang

Yin Liu has a bachelor's in remote sensing science and technology from China University of Geosciences (Wuhan) and a dual master's in environment and sustainability and data science from the University of Michigan, Ann Arbor. He is interested in solving agricultural problems through remote sensing and machine learning methods. Advisor: Chunyuan Diao



Tasneem Haq Meem earned her bachelor's degree in civil engineering from Bangladesh University of Engineering and Technology. Her research interests include river morphology, sediment transport dynamics, application of satellite/aerial imagery and GIS.

Advisor: Bruce Rhoads



Lauren Weber has a bachelor's in geography from Macalester College in Saint Paul, Minnesota. She is interested in processes related to urban development, from the dynamics of publicprivate partnerships to community engagement in planning. Advisor: Julie Cidell



Lixuanwu Zhou has a bachelor's in geographic information science and technology from Zhejiang University. He is passionate about CyberGIS and his research focuses on spatiotemporal data mining and GeoAI, with an emphasis on mobilities and environmental issues. Advisor: Shaowen Wang



DEPARTMENT OF GEOGRAPHY & GEOGRAPHIC INFORMATION SCIENCE

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Field-level crop monitoring throughout the growing season in Central Illinois with satellite time series. The satellite images are shown in standard false color composite, with the red shading representing the live vegetation, and green color denoting the bare soil. (Image courtesy of Dr. Chunyuan Diao)

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