

It's

# GIS DAY

@ **U**L!  
OF

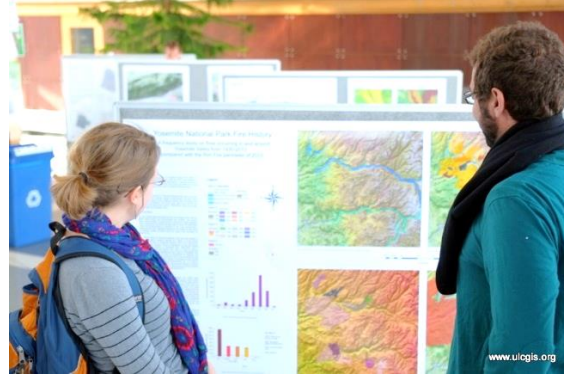
November 18, 2015  
10:30AM-Shumaker Research Building-Room 139



## Program Agenda

# GIS DAY

**Greetings** and welcome to the 5<sup>th</sup> annual celebration of GIS Day at UofL! Today we celebrate and spotlight the latest research and advancements in the geospatial industry. Presentations on a variety of topics including; GPS, Drone technology, GIS in education, and Crime mapping - to name just a few - are open to all faculty, staff, students and the general public. We welcome you visit our Audwin and Rae Helton Center for GIS laboratory and to join us for lunch in Lutz Hall. While you're there, take a look at all the wonderful maps that are on display in the atrium. Lastly, be sure to stick around for the Drone demonstration and Geocache event which will wrap up the events of the day!



Whether you know it or not, GIS DAY is celebrated around the world. In the US, it has always been held on the third Wednesday in November during Geography Awareness Week. The first GIS Day was held in 1999 and was promoted by Environmental Systems Research Institute (ESRI).

*“GIS Day provides an international forum for users of geographic information systems (GIS) technology to demonstrate real-world applications that are making a difference in our society. Esri president and co-founder Jack Dangermond credits Ralph Nader with being the person who inspired the creation of GIS Day. He considered GIS Day a good initiative for people to learn about geography and the uses of GIS. He wanted GIS Day to be a grassroots effort and open to everyone to participate.” ESRI*

We truly hope you enjoy the GIS Day festivities. To learn more about GIS, or, if you're interested in pursuing a career in geospatial technologies, please feel free to reach out to us. We hope you have a wonderful day!

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## GIS DAY AGENDA:

### Lutz Hall Atrium:

- All day: Map Gallery, Helton GIS Lab tours
- 11:45am – 12:30pm: Pizza!
- 3:15pm: Drone demonstration-Geocache

### Shumaker Research Building-Room 139:

- 10:30am -3pm: Technical Presentations

### Lutz Hall-Room 225:

- 10:30am – 3pm: Technical Presentations

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## Technical Presentations: Shumaker Research Bldg-Room 139

Moderator: Bob Forbes

### 10:30am- 11:15am

- Welcome!-Bob Forbes & DJ Biddle, Center for GIS
- Honored Guest Speaker: Mr. Audwin Helton, SDI

### 11:15am – 11:45am

#### PRIME Time GIS

*Louie Greenwell, GISP, CFM*

Prime Engineering

Mr. Greenwell began his GIS career in 1992 and currently serves as a Director of GIS Services for Water Resources at PRIME AE Group. He has a diverse background in GIS implementation that has covered many levels of federal, state and local government. His experience includes GIS implementation planning, applications and database development, infrastructure and asset management, risk analysis and floodplain management. He has a BS in Geography from the University of Louisville and is an active member of several professional organizations serving as Treasurer of the Cumberland Chapter of URISA and Co-Chair of the Professional Development Committee for the Association of State Floodplain Managers (ASFPM).

### 12:30pm – 1:00pm

#### Literary Louisville: GIS and the Humanities

*Stephen Schneider, PhD & DJ Biddle, GISP*

*University of Louisville, Departments of English, and Geography & Geosciences*

Dr. Schneider is Associate Professor and Director of Graduate Studies in the University of Louisville's English Department. His research focuses on social movement rhetoric, and specifically the intersection between rhetorical theory, public sphere theory, and social protest. His first book, *You Can't Padlock an Idea: Rhetorical Education at the Highlander Folk School, 1932-1961*, was published by the University of South Carolina Press in 2014.

Mr. Biddle is a GIS Technology Consultant at the University of Louisville Center for GIS. DJ works with colleagues within the Dept. of Geography and Geosciences, as well as other academic and administrative units, to identify, design, and implement creative applications of geospatial technologies to emerging research and operational challenges. He enjoys sharing his passion for the power of spatial reasoning and GIS technology with students through his Advanced Geographic Information Sciences course, and working with them to further their own research interests and academic goals. DJ hold a Master of Science in Applied Geography from UofL, and is certified as a GISP by the GIS Certification Institute.

**1:00pm – 1:30pm**

### **Mapping in Criminology and Criminal Justice**

*Eric McCord PhD, Heather Tolle, UofL, Department of Justice Administration*

Dr. McCord is an Assistant Professor in the Department of Justice Administration, University of Louisville. He received his B.A. in Criminal Justice from Chapman University, his M.A. in Criminal Justice from California State University, San Bernardino, and his Ph.D in Criminal Justice from Temple University. Dr. McCord's research interests include the spatial analysis of crime and crime mapping, CPTED and environmental crime prevention, problem-oriented, and third party policing. He also has a special interest in the relationship between land use and crime, an area in which he has already completed several studies and published on. His work has appeared in such peer-reviewed journals as *Criminology*, *Journal of Research in Crime and Delinquency*, *Justice Quarterly*, *Crime & Delinquency*, *Australian and New Zealand Journal of Criminology*, and *Crime Patterns and Analysis*.

Ms. Tolle is a second year PhD student in the department of criminal justice. Her research interests range from peer rejection, to female perpetrated homicide, to biosocial criminology, and is currently taking Dr. McCord's Crime Mapping class. Heather has a very diverse background. She earned her BA and MA in psychology here at U of L and currently works for U of L's neurological surgery department overseeing several multi-site research studies involving patients with spinal cord injuries. After graduation Heather plans to continue her focus on research with a position at a think tank or academic institution.

**1:30pm – 2:00pm**

### **GPS: Are you Geo-Optimized?**

*Eric Muncy, Mapping-GIS Sales Consultant  
Precision Products*

Mr Muncy graduated from the University of Louisville with a degree in Geography and a concentration in environmental analysis. He has been a self-employed contractor, GIS analyst, and project manager for over 20 years, working on various water, sewer, stormwater, and landuse planning projects. Currently, Eric is the Mapping-GIS Sales Consultant for Precision Products, where he has assisted customers getting started with their GIS projects and creating spatially accurate GIS data.

**2:00pm – 2:30pm**

### **Whence point clouds? Information - mining the KYAPED – LiDAR and multispectral imagery and services, oh my!"**

*Demetrio P. Zourarakis, PhD, GISP, CMS-RS, CMS-GIS/LIS  
Kentucky Office of Geographic Information*

Dr. Zourarakis is a GIS and Remote Sensing Analyst with the Kentucky Division of Geographic Information; his duties include geodata processing and information analysis, as well as outreach and agency consultation and coordination. He also administers the Kentucky Esri Site License Program for

Postsecondary Education. He holds GISP (GISCI) and Certified Mapping Scientist (ASPRS) – Remote Sensing and GIS/LIS, certifications and re-certifications. He holds a Ph.D. from the University of Kentucky, a M.Sc. from Iowa State University and a B.S. from the University of Buenos Aires, Argentina. Demetrio is a charter member of the Kentucky Association of Mapping Professionals and the Cumberland Chapter of URISA. He is a member or chair of several state, regional and national technical committees, and serves in several advisory roles to projects and programs, and an adjunct faculty at the University of Kentucky.

**2:30pm – 3:00pm**

**Environmental Applications of Unmanned Aerial Systems**

*Forrest Stevens, PhD. & Andrea Gaughan, PhD., University of Louisville*

Dr. Stevens graduated with a B.A. in Biology, specializing in Ecology and Evolution from the University of Chicago in 1998. He received his Ph.D. in Geography from the University of Florida in 2015, specializing in remote sensing, spatial modelling, and multi-scalar studies of human-environment interactions. As an Assistant Professor in the University of Louisville Department of Geography and Geosciences he focuses on interdisciplinary collaborations and integrating diverse data sources using novel statistical methods, advanced population modeling, and interdisciplinary studies of land change.

Dr. Gaughan completed a B.A. in English at Furman University in 2003. She has a M.S. (2006) and a Ph.D. (2011) in Geography from the University of Florida. Both degrees focused on understanding coupled human-environment interactions where conservation and development issues strongly influence land-use decisions and subsequent land-cover change. She has expertise in spatial modeling, remote sensing and GIS applications for population mapping, land-change and climate issues. Currently she is in her third year as an Assistant Professor in the Department of Geography and Geosciences at the University of Louisville.

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**Technical Presentations: Lutz Hall - Room 225**  
**Moderator: Faye Peters**

**11:15am – 11:45am**

**JCPS teacher externship program – Connecting teachers to the local GIS community**

*Ryan Deal, Business and IT Career Theme Specialist, JCPS*

Mr. Deal is the business and IT career specialist at Jefferson County Public Schools in Louisville, KY. He facilitates teacher training, helps design and implement project based learning curriculum, and supports business and IT career pathways. He also works with business, industry, labor, and post-secondary institutions to create partnerships with Jefferson County Public Schools.

**12:30pm – 1:00pm**

**GIS and the Life and Times of an ADD Employee**

*Adam Forseth, Aaron Jones-GISP, and Zach Herzog*  
*Kentuckyiana Regional Planning & Development Agency*

Mr. Forseth graduated from the University of Louisville in 1994 with a BS in Geography and a concentration in environmental sciences. Adam has been working in GIS for 21 years and is currently the GIS Manager for the Kentuckiana Regional Planning and Development Agency (KIPDA). KIPDA is the Area Development District for the Louisville area. Adam is a KAMP member and is serving his 2<sup>nd</sup> term as a Director on the board.

Mr. Jones, GISP, is a GIS Specialist who has been with the Kentuckiana Regional Planning and Development Agency (KIPDA) for almost 15 years. He received his Bachelor of Arts degree in Geography from Morehead State University in 2000.

Mr. Herzog graduated with a BA in geography in 2000 from Morehead State University. Zach has worked at KIPDA since 2001 as a GIS Specialist.

**1:00pm – 1:30pm**

### **GIS applications in spatial analysis of education issues in U.S. metropolitan areas**

*Haifeng Zhang, PhD & Dr. Matthew Ruther, PhD*

*University of Louisville, Departments of Geography & Geosciences, and Urban & Public Affairs*

Dr. Zhang is an associate professor at the Department of Geography & Geosciences. His research areas include urban geography, population geography, and urban and regional studies using GIS and other spatial analytical methods. Charlie's current research projects are related to school segregation, urban crime mapping, and urbanization in China.

Dr. Ruther is assistant professor at the Department of Urban and Public Affairs, and he is also the director of the Kentucky State Data Center (KSDC). His research interests are in the areas of demographic mapping and spatial analysis of population data. He has published work analyzing the factors associated with population growth in metropolitan neighborhoods, as well as research utilizing spatial modeling and spatial regression methods.

**1:30pm – 2:00pm**

### **Business Applications at AECOM**

*Katelyn Henry CFM and Tommy Arnsperger, AECOM*

Ms. Henry graduated in 2011 from the University of Louisville with a BS in Environmental Analysis. She has been a GIS Specialist at AECOM Louisville for over 5 years in the water resources department. Her position includes map design, spatial data analysis, database management, and report production for a variety of clients across the region, in applications from floodplain mapping and green infrastructure to natural gas route development.

Mr. Arnsperger graduated in 2015 from the University of Louisville with a Master of Engineering in Civil Engineering. He began his career with AECOM as a co-op and has since been hired on full-time in the water resources department. As a water resources engineer, he is responsible for hydrologic and hydraulic modeling and analyses supporting projects involving proposed bridges, stormwater management, and floodplain mapping.

**2:00pm – 2:30pm**

### **New "Waze" Louisville Metro is Sharing GIS Data**

*Phil Gardner, Louisville Metro Public Works, & Jess Hamner, LOJIC*



Mr. Gardner is the GIS Supervisor for the Louisville Metro Department of Public Works & Assets in Louisville, KY. He received his Bachelor's degree in Geography and Geographic Information Techniques from the University of Kentucky in 2011. After a brief stint with the Kentucky Transportation Cabinet's Highway Information System data management team in the Division of Planning, Phil was hired by Metro Public Works as a GIS Analyst. He worked in this position for 2 years until he was hired as the GIS department supervisor. He has been in this role now for almost 2 years. He is constantly working to improve his agencies use of GIS technologies and understanding the geographic approach to planning and problem solving for infrastructure management.

Mr. Hamner spent the previous 5 years with Louisville Metro Government as a GIS Supervisor at Public Works and a Systems Administrator at Metro Technology Services. He also worked as a GIS Analyst at Spatial Data Integrations for 4 years. Jess is a 2006 graduate of the Western Kentucky University with a B.S. in Geography.

**2:30pm – 3:00pm**

**Out with the old and in with the new-ish. KYTC's migration out of ArcGIS for Mobile and into ESRI's Collector**

*Andrew McKinney, Kentucky Transportation Cabinet*

Mr. McKinney is the Mobile GIS Lead for the Kentucky Transportation Cabinet's Spatial Services Branch. He is a proud graduate of the University of Louisville's Geography and Geoscience's program with a B.S. in Applied Geography with a concentration in GIS.