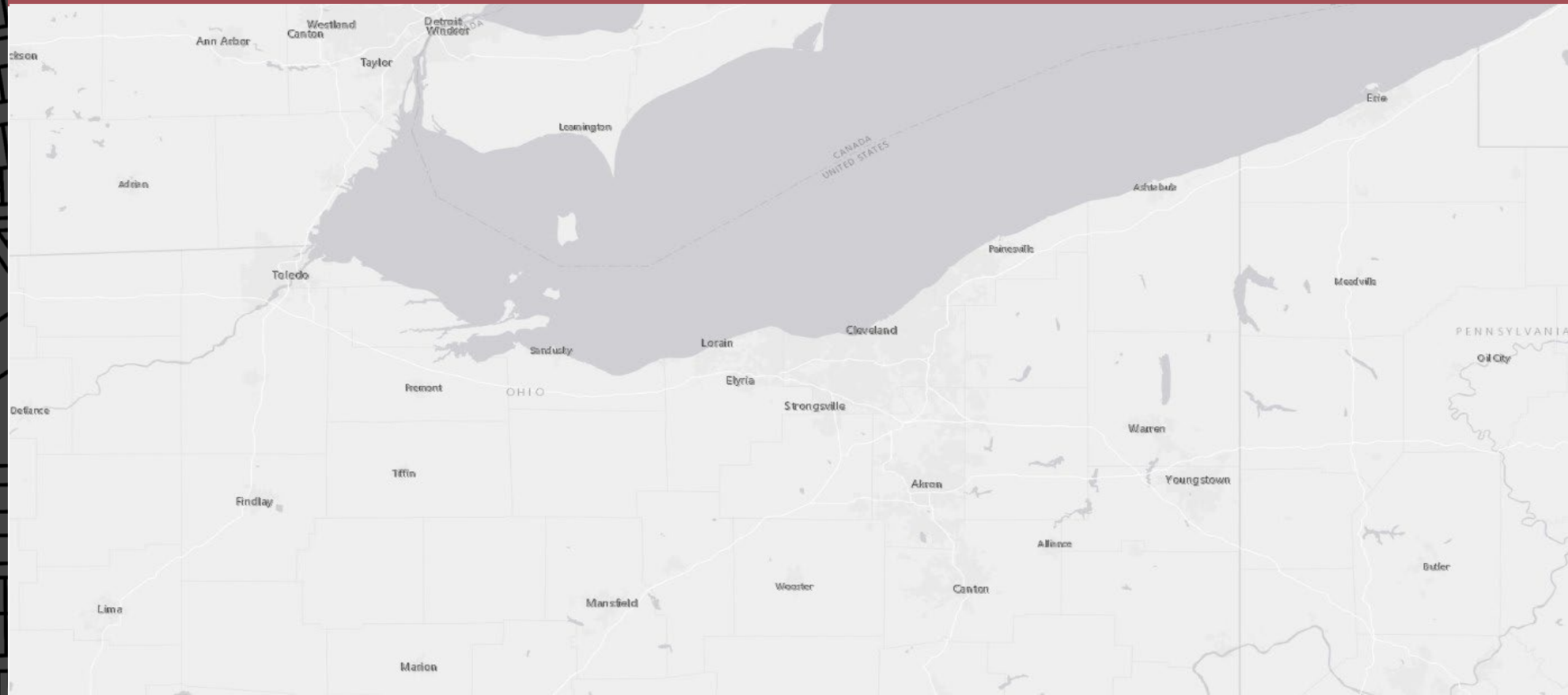


# The 2025 Great Lakes GeoSymposium

HUNTINGTON CONVENTION CENTER OF CLEVELAND  
AND  
THE CLEVELAND PUBLIC LIBRARY LOUIS STOKES WING

MAY 6<sup>th</sup> and 7<sup>th</sup>, 2025

## PRELIMINARY GEOSYMPIOSIUM PROGRAM



# WELCOME



We are excited to welcome you to the 2025 Great Lakes GeoSymposium, a premier event uniting geospatial professionals from Ohio, Pennsylvania, Michigan, and beyond. This year's symposium is dedicated to "Expanding Horizons with Geospatial AI," emphasizing the transformative impact of artificial intelligence on geospatial technologies. Attendees will have the opportunity to delve into the latest advancements, share innovative ideas, and explore best practices in the rapidly evolving field of GeoAI.

The symposium will take place on May 6th and 7th, 2025, across two distinguished venues in downtown Cleveland. Day One will be hosted at the Huntington Convention Center of Cleveland, renowned for its versatile spaces and state-of-the-art facilities. Day Two will be held at the Cleveland Public Library Louis Stokes Wing, a hub of knowledge and architectural elegance. Both venues are within walking distance of each other, offering attendees a seamless conference experience.

A highlight of this year's program is the keynote address by Ismael Chivite, Senior Principal Product Manager at Esri and a recognized leader in the field of GeoAI. Mr. Chivite will share his insights into integrating artificial intelligence within geospatial technology, drawing from his extensive experience in developing innovative geospatial products and strategies. This keynote promises to offer valuable insights into the future of geospatial intelligence.



# EVENT SCHEDULE

## HUNTINGTON CONVENTION CENTER OF CLEVELAND

Tuesday, May 6<sup>th</sup>, 2025

Times	Room 203	Room 205-B
8:00 - 9:00	Registration	
9:00 - 9:45	Ismael Chivite Keynote (Room 205-B) Tom Fisher Moderator	
10:00 - 10:30	Managing ODOT's Assets Using GIS Michael Weakley	Cleveland Public Power: Modernizing Asset Data Xander Mavrides
10:30 - 10:50	Break and Exhibitors	
11:00 - 11:30	Privacy and GeoAI Standard Software AI	Geospatial Coding with Cleveland's Open Data Portal Sam Martinez
11:40 - 12:10	Managing Emergency Operations with the Stark County IMAT Joe Guzi	GIS: Making Property Taxes Less Taxing, "Peaking Behind the Curtain: How GIS Empowers Transparency in Cuyahoga County's Reappraisal" Jordan Abbott
12:10 - 1:45	Lunch on your own	
1:45 - 2:15	Enhancing Field Data Quality with AI Image Recognition Kevin Surbella	Open Data, Open Doors: Creating and Managing Cleveland's Open Data Portal Dro Sohrabian
2:15 - 3:00	Break and Exhibitors	
3:00 - 3:30	Building Cross-Platform Mobile GIS Solutions: Leveraging Flutter and Esri for Real-World Applications Daniel Sung	ArcGIS Online and ArcGIS Enterprise: Architectural Patterns and Practices Jarod Fox
3:40 - 4:10	What's New in GIS at the State Level: Advancements and Future Directions Jennifer McFarland	
4:10 - 4:30	Break & Exhibitors	
4:30 - 6:30	Social Event - Rooftop Terrace	

## CLEVELAND PUBLIC LIBRARY LOUIS STOKES WING

Wednesday, May 7<sup>th</sup>, 2025

Times	Learning Commons	Conference Room C
8:30 - 9:00	Registration	
9:00 - 9:45	Exploring New ArcGIS Solutions - Auditorium Jarod Fox	
9:45 - 10:00	Break	
10:00 - 10:30	Workshop AI in Action: Harnessing ChatGPT for Next-Gen Geospatial Problem-Solving David L. Price	Using GIS for Storm Damage Assessment at Holden Arboretum Katherine Bateman
10:40 - 11:10		Great Lakes in 50 Maps Alex B. Hill
11:20 - 11:50		Tidy Up Your Tiles: Spring Cleaning Web Maps Treavon Clark
12:00 - 1:30	Lunch on your own	
1:30 - 2:00	From Biased Brains to Brilliant Decisions: How to Outsmart Your Own Mind and Conquer Data Chaos, "Modernizing Cuyahoga County Land Records" Dan Giersz, Jordan Edmunds	The Ohio Turnpike and Infrastructure Commission: A Look Back, Present Projects, and a Glimpse into the Future Robert Erickson
2:10 - 2:40	Expanding Broadband Access in Ohio and Beyond Richard Kotapish	Geospatial AI: starting with LLM fundamentals in precision viticulture Mark Guizlo
2:40 - 3:00	Break	
3:00 - 3:30	Old Dog, New Tricks: Enhancing Everyday GIS Workflows with AI Jim Branch	Applying Python Automation to Geoprocessing Tools: A 3D Use Case Treavon Clark
3:30 - 4:00	North Coast Geospatial Information and Data Exchange – Regional Data Collaboration for Cuyahoga County Tom Fisher	
4:00 - 4:15	Closing Remarks - Tom Fisher	

# DAY 1

## HUNTINGTON CONVENTION CENTER OF CLEVELAND

### Managing ODOT's Assets Using GIS

**Presenter Name:**

Michael Weakley

**Organization:**

Office of Data Governance, ODOT

**Presenter Bio:**

Michael Weakley is the Transportation Asset Management Program Manager in the Office of Data Governance at the Ohio Department of Transportation. He has been with ODOT for nine years and has fifteen years of experience in the Asset Management and GIS industries. He earned his BA in Geography with a minor in City and Regional Planning from The Ohio State University. He received his GIS Certificate from Columbus State Community College in 2021 and earned his GISP certification in 2022.

**Description:**

ODOT maintains \$115 billion worth of infrastructure assets on our roadways. The Office of Data Governance implemented GIS solutions to inventory and inspect 10+ asset classes. Since 2016, ODOT workers have added over 1.5 million asset records through ODOT's Collector Program. This presentation will walk through the tools our team provides to the end users which allows ODOT's workforce to make data-driven decisions to ensure strategic planning and investment strategies for our transportation system.

### Cleveland Public Power: Modernizing Asset Data

**Presenter Name:**

Xander Mavrides

**Organization:**

Division of Water, City of Cleveland

**Presenter Bio:**

30+ years in GIS

**Description:**

Accurate and up-to-date asset data is critical for the reliable and efficient operation of electric utilities. This presentation outlines CPP's recently revived GIS initiative to modernize asset data collection and work management (Cityworks). We will explore how these efforts enhance asset data quality, operations, and customer service.

## **Privacy and GeoAI**

**Presenter Name:**

TBD

**Organization:**

Standard Software AI

**Presenter Bio:**

I have worked in the GIS field for 25 years and recently in Artificial Intelligence during the past 10 years. I hold a BS and MS in computer science and currently I am the CEO of a small startup called Standard Software AI.

**Description:**

"Privacy and GeoAI" refers to the significant concerns surrounding the potential for personal privacy violations when using geospatial technologies together with artificial intelligence (GeoAI). Analyzing location data with events at different times can generate insights that can be used in many ways. Because the related data can often reveal sensitive details about an individual's movements and whereabouts, how the data is processed raises issues about unauthorized tracking, data collection, and misuse without proper consent.

## **Geospatial Coding with Cleveland's Open Data Portal**

**Presenter Name:**

Sam Martinez

**Organization:**

City of Cleveland in the Department of Urban Analytics and Innovation (Urban AI)

**Presenter Bio:**

Currently, I work as a Spatial Data Analyst at the City of Cleveland in the Department of Urban Analytics and Innovation (Urban AI).

I use Python to automate the ingestion, transformation, and publishing of city data on the Cleveland Open Data Portal. I also work with departments across the city to help them improve the quality of their data, and ultimately build dashboards and visualizations with that data.

**Description:**

We will take you on a tour of accessing and using spatial data on the City of Cleveland's Open Data Portal with Python. While Python is more accessible than ever, the leap into coding for non-traditional users can be scary and mired in lingo! We plan to demonstrate an end-to-end data project that uses the geopandas and arcgis packages. This project will teach you the fundamentals of geospatial data, how to use the ArcGIS REST API, and how to perform and visualize a basic spatial analysis. This is intended for those who have a baseline understanding of Python.

## **Managing Emergency Operations with the Stark County IMAT**

**Presenter Name:**

Joe Guzi

**Organization:**

Stark County GIS

**Presenter Bio:**

Joe Guzi has over fifteen years of experience with the Stark County GIS Department. His work focuses on advancing GIS solutions to the next level, by providing application development, automating daily tasks with ArcGIS, and maintaining the overall GIS system. Outside of work, Joe enjoys engaging in GIS side projects for fun. Since 2018, he has also been a part-time Adjunct GIS Instructor and Learning Support Specialist at Columbus State Community College.

### **Description:**

This presentation will delve into the GIS initiatives within the Stark County Incident Management and Assistance Team (IMAT), highlighting the challenges encountered in the initial approach to incident support. We will then examine how the adoption of Esri's Emergency Management Operations streamlined and standardized situational awareness, enhancing the team's overall effectiveness in managing incidents.

This is not an AI presentation.

## **GIS: Making Property Taxes Less Taxing, "Peeking Behind the Curtain: How GIS Empowers Transparency in Cuyahoga County's Reappraisal"**

### **Presenter Name:**

Jordan Abbott

### **Organization:**

Cuyahoga Enterprise GIS Department

### **Presenter Bio:**

Jordan Abbott has been in the GIS industry for over ten years and has been part of the Cuyahoga County Enterprise GIS team since 2017. While at the county, he cut his teeth working on parcels as a GIS Technician and now supports various departments, communities and organizations by offering wide ranging geospatial solutions. In his free time you'll find him on his bike knocking off Cleveland streets one by one (he's over 75% done), on a bikepacking trip, or growing weeds in the garden. In addition, he does mapping projects for community groups and non-profits and is active in Cleveland's Old Brooklyn neighborhood.

### **Description:**

The presentation explores how Cuyahoga County utilized GIS to enhance transparency in its 2024 sexennial reappraisal. With property values expected to rise significantly, the county leveraged its existing Fiscal GIS Hub to create new tools, including the Sexennial subpage, Value Change apps, and an improved Sales Finder. These resources provided clearer insights into property valuations, making data more accessible and empowering residents to understand and contest their assessments. As a result, informal complaints decreased despite a substantial increase in property values, demonstrating the impact of GIS in fostering public trust and engagement.

## **Enhancing Field Data Quality with AI Image Recognition**

### **Presenter Name:**

Kevin Surbella, Mathew Kotva

### **Organization:**

TRC

### **Presenter Bio:**

Kevin Surbella is a Senior Technology Manager at TRC and an Adjunct Professor at Columbus State Community College (CSCC). With a career spanning since 2004, Kevin possesses extensive expertise in both proprietary and open-source geospatial solutions. His strong background encompasses GIS application development, database management, server administration, and data analysis. Passionate about sharing his knowledge, Kevin mentors through GISCI and actively participates in the GIS Stack Exchange community. He holds an M.A. in Geography and a B.S. in Conservation from Kent State University and has been GISP certified since 2009.

Matthew Kotva is a Machine Learning Engineer at TRC. His expertise is in software development and machine learning, and he has a strong background in GIS application development. At TRC, he has led the development and integration of image recognition models. Matt earned a B.S. in Computer Science from Calvin University and a M.S. in Computer Science with a Machine Learning specialization from Georgia Institute of Technology.

### **Description:**

Interested in increasing field data quality using photos and AI? This presentation will cover the integration of AI Image Recognition models to verify asset identification in Esri ArcGIS Field Maps. In addition, we'll cover how the models are developed, trained, and deployed in an AWS cloud environment, working seamlessly with ArcGIS feature services.

## **Open Data, Open Doors: Creating and Managing Cleveland's Open Data Portal**

### **Presenter Name:**

Dro Sohrabian

### **Organization:**

City of Cleveland's Office of Urban Analytics and Innovation



### Presenter Bio:

Dro Sohrabian is the Manager of Analytics & Open Data at the City of Cleveland's Office of Urban Analytics and Innovation. In this role, he oversees the development and management of internal and external analytics services and the Open Data initiative, designed to support and enhance public sector operations and policymaking. Dro is dedicated to making civic data accessible, translating complex datasets into clear, intuitive insights for both staff and the wider community.

With a background in urban planning from Cleveland State University, Dro is passionate about cities and urban policy. He brings six years of experience in local public sector work—having contributed at CSU's Center for Economic Development, the Greater Cleveland Regional Transit Authority, and the Cleveland City Planning Commission. His work bridges the gap between urban policymakers and the analytical systems needed to effectively evaluate and communicate evolving community needs and impacts.

### Description:

Explore the development of the City of Cleveland's Open Data Portal in this jam-packed session. We'll cover the fundamental reasons behind building the portal and our approach so far as we hit our first year of operation and continuous growth. You'll learn about our Open Data policy and data governance framework—key components that ensure the quality, security, and accountability of our public data. We'll take you through how we organize our content by topic and type, using clear examples from categories such as Public Safety, Health and Environment, and more. Additionally, we'll share the practical tools and tricks we employ with the ArcGIS Python API to monitor and manage our datasets. Plus, we'll wrap up with a review of the most popular items on the portal, highlighting what resonates most within our active civic data community.

## **Building Cross-Platform Mobile GIS Solutions: Leveraging Flutter and Esri for Real-World Applications**

### Presenter Name:

Daniel Sung

### Organization:

Polygon Solutions

### Presenter Bio:

Daniel Sung is an analyst at Polygon Solutions, where he has spent the past three years leveraging his passion for data to support innovative geospatial solutions. A graduate of The Ohio State University, Daniel applies his analytical expertise to enhance GIS

applications, helping organizations make smarter, data-driven decisions.

With a natural curiosity and a knack for breaking things, Daniel enjoys software testing, pushing applications to their limits to ensure reliability and performance. His problem-solving mindset and attention to detail make him a key asset to the Polygon Solutions team, where he helps refine and improve mobile GIS solutions for real-world applications.

#### **Description:**

Mobile Geographic Information Systems (GIS) have transformed field data collection, visualization, and analysis, yet traditional development often relies on platform-specific tools, limiting cross-platform deployment. This presentation explores Flutter, Google's open-source UI framework, and its integration with Esri's technology stack, for building dynamic, cross-platform mobile GIS applications.

We'll share our journey with Esri, including our experience with the Esri Flutter SDK through the Esri Early Adopter Program, and showcase real-world applications like Xplor and the Ohio Department of Transportation (ODOT) Location Finder app. These examples demonstrate how Flutter delivers scalable, intuitive, and high-performing GIS solutions for field crews.

Key takeaways include:

- Cross-platform functionality for iOS and Android.
- Optimized performance for complex geospatial data.
- Insights from integrating Esri's Flutter SDK with Esri's technology stack to enhance mobile GIS applications.

Attendees will gain a deeper understanding of how Polygon and ODOT leverage Flutter and Esri technologies to improve GIS capabilities for field operations.

## **ArcGIS Online and ArcGIS Enterprise: Architectural Patterns and Practices**

#### **Presenter Name:**

Jarod Fox

#### **Organization:**

Esri

#### **Presenter Bio:**

Jarod Fox is an Esri solution engineer based in Minneapolis, MN. He works primarily with municipal governments in the Dakotas, Ohio, and Wisconsin. Jarod has a bachelor's degree in Geography and GIS from the University of Illinois and a Master's in Applied Geospatial Information Systems and Technologies from UCLA. Prior to joining ESRI, he worked as a GIS Analyst for Peoria County, IL.

**Description:**

It is a common misconception that an organization should use either ArcGIS Enterprise or ArcGIS Online, when in fact many organizations successfully use both. This session will cover how to choose the deployment that best fits your organizational needs. We will talk about the different forms of hybrid patterns that best take advantage of each environment's unique strengths to build the best possible system and help you plan.

**What's New in GIS at the State Level: Advancements and Future Directions****Presenter Name:**

Jennifer McFarland

**Organization:**

OGRIP

**Presenter Bio:**

Jennifer has been working in the State of Ohio GIS Support Center's OGRIP office since 2004 as a GIS specialist. She maintains the Enterprise GIS, AGOL, and Enterprise Portal. She trains end-users from other state agencies on how to use the portal to create layers, maps, and apps for their specific agency.

**Description:**

What's New in GIS at the State Level: Advancements and Future Directions

As the state completes its transition to the AWS cloud, we are poised to expand the range of services available to the GIS community. This session will highlight key updates, including a refreshed statewide imagery service, a new user-friendly URL, and the upcoming launch of an enhanced locator/geocoding service. Attendees will gain insights into ongoing OGRIP projects and initiatives, along with a preview of new and upcoming statewide datasets. Join us to learn how these innovations will shape the future of GIS services and data access at the state level.

# DAY 2

CLEVELAND PUBLIC LIBRARY LOUIS STOKES WING

## Exploring New ArcGIS Solutions

### Presenter Name:

Jarod Fox

### Organization:

Esri

### Presenter Bio:

Jarod Fox is an Esri solution engineer based in Minneapolis, MN. He works primarily with municipal governments in the Dakotas, Ohio, and Wisconsin. Jarod has a bachelor's degree in Geography and GIS from the University of Illinois and a Master's in Applied Geospatial Information Systems and Technologies from UCLA. Prior to joining ESRI, he worked as a GIS Analyst for Peoria County, IL.

### Description:

This session will cover some of the new capabilities and solutions available in ArcGIS to help organizations jumpstart common workflows. These solutions come templated apps, surveys, maps, feature layers, and ArcGIS Pro projects that can be quickly deployed, populated with your data and configured to meet your organization's specific needs.

## AI in Action: Harnessing ChatGPT for Next-Gen Geospatial Problem Solving (2-HOUR WORKSHOP)

### Presenter Name:

David L. Price

### Organization:

Wood County Engineer's

### Presenter Bio:

David L. Price is an accomplished GIS professional with a strong background in geospatial data management, analysis, and application development. Currently serving as the Geographic Information Systems Project Manager for Wood County, Ohio, David specializes in spatial analysis, database integration, and the creation of innovative GIS solutions for local governments. His work includes managing complex geospatial projects, mentoring GIS teams, and leveraging tools like Python and ArcGIS Enterprise to enhance data-driven decision-making.

A self-taught programmer with formal training in data analytics, David has a passion for exploring emerging technologies, including AI-driven tools like ChatGPT, to optimize geospatial workflows. His contributions extend beyond the office as a speaker at conferences such as URISA GIS-Pro and the Ohio GIS Conference, where he shares insights on GIS best practices and the future of geospatial technologies.

David is a founding board member of the Ohio Counties Geospatial Association, GPN Vanguard Cabinet member, and an Advisory Board Member for the University of Toledo Geography and Planning Department. His dedication to advancing the geospatial field is matched by his commitment to making GIS accessible and impactful for communities of all sizes.

### Description:

In today's rapidly evolving world, geospatial professionals grapple with increasingly complex datasets and demands for real-time analysis. Large Language Models (LLMs) such as ChatGPT have the potential to revolutionize how we tackle these challenges. This presentation will introduce key strategies and use cases for integrating ChatGPT into a geospatial workflow, helping practitioners streamline data exploration, automate repetitive tasks, and derive deeper insights.

We will begin by demonstrating how ChatGPT can serve as a "digital assistant" that rapidly responds to coding questions, script troubleshooting, and GIS software nuances—cutting down research time significantly. Attendees will learn practical tips for using ChatGPT to accelerate workflows across project areas such as environmental applications, infrastructure planning, emergency response, and more.

Next, we will explore how ChatGPT's natural language querying capabilities enable non-technical stakeholders to participate in geospatial problem-solving. By translating complex spatial analyses into human-readable text, ChatGPT bridges communication gaps and fosters collaboration across diverse teams, from city planners to public health officials.

Finally, the session will provide real-world success stories and lessons learned in building automated pipelines that incorporate

ChatGPT for tasks like data cleaning, advanced analytics, and report generation. Attendees will walk away equipped with actionable approaches for harnessing AI-driven innovation and ensuring data integrity, efficiency, and scalability in their geospatial endeavors.

By showcasing ChatGPT's broad set of capabilities—from scripting support to intuitive data synthesis—this presentation aims to highlight how LLMs can serve as a powerful, cost-effective tool that drives better outcomes in geospatial analysis. Whether you are involved in public safety, infrastructure, natural resource management, or any geospatial-intensive field, you will discover how ChatGPT can help your team work smarter, faster, and with greater precision.

## **Using GIS for Storm Damage Assessment at Holden Arboretum**

### **Presenter Name:**

Katherine Bateman

### **Organization:**

Holden Arboretum

### **Presenter Bio:**

Katherine Bateman is a GIS student at Lakeland Community College who is currently an Americorp member serving as the Trails Assistant at Holden Arboretum. Prior to studying GIS, she was an archaeologist, specializing in the archaeology of ancient Egypt. She holds a BS in Mathematics from Lake Erie College and an MA in Egyptology from The American University in Cairo. She has participated in multiple excavations throughout Egypt, including those in Cairo and Luxor. Her greatest passions in life are raising her daughter Mariam and being a dog mom to Kokomo and Sharky.

### **Description:**

On August 6, 2024, five EF-1 tornadoes and straight-line winds occurred across Northeast Ohio causing widespread damage. As a result, the Holden Arboretum, located in Kirtland, sustained moderate to severe damage to both structures and its natural holdings, causing it to remain closed to visitors for 8 days. This significant weather event gave the organization an opportunity to implement GIS for storm damage assessment, which helped to inventory damaged assets, visualize damage patterns, and track what has been fixed.

Holden staff members began their initial tree damage assessment the day after the storm. They primarily focused on areas that the public and/or staff frequently visit, including the gardens within the core deer fence, the Conifer Collection, Working Woods, Specimen Tree, and the Long Center for Plant and Environmental Science nursery. They surveyed these areas on foot and recorded information about the damaged trees with pen and paper. When possible, photos of the damage were captured with personal cellular devices. Once the data and photos were collected in the field, they were entered into an excel document and then imported into ArcGIS Pro.

A total of 177 damaged trees were surveyed: 70 were accessioned, which means they were already part of a database that includes information about the tree and its location; and 107 were not accessioned. Eighty-three trees were not salvageable and 48 were an immediate hazard. The southwest portion of the core garden areas, especially Buckeye Bud's Adventure Woods, Owl Bog, and Layer Garden, sustained a concentrated amount of tree damage.

The pen and paper method of data collection used during this survey created a cumbersome workflow. Challenges included nonstandard abbreviations, spelling inconsistencies, and often a lack of accurate and precise spatial data. The locations of the 107 non-accessioned trees consisted of written descriptions of where the trees were in relation to other objects or natural features. Some locations were obvious, others could only be estimated. The locations of the 70 accessioned trees were obvious because they had already been mapped in a plant records database.

This was a valuable learning experience that paved the way for a more streamlined data collection workflow for future damage assessments. As a result, a web map was created on Holden's ArcGIS Online organizational account, which contains two hosted feature layers: Tree Damage Assessment and Structural Damage Assessment. Appropriate forms were created in Field Maps Designer for each layer and will be ready to deploy with the mobile Field Maps application when needed in the future.

## **Great Lakes in 50 Maps**

### **Presenter Name:**

Alex B. Hill

### **Organization:**

Wayne State University

### **Presenter Bio:**

Alex B. Hill is a Director of Data and Community Research. His work highlights the intersections of power, privilege, and race in regards to health equity, access to basic services, and the social and political determinants of health. He is Project Director of the Detroit Food Map Initiative, which has been mapping food access locations and gathering lived experiences with the food system in Detroit since 2011. Alex started DETROITography (detroitography.com) in 2013 to bring together various Detroit mapmakers and cartographers to showcase their work and encourage community members to start mapping their own city. He teaches in urban studies, public health, and geography at Wayne State University. Alex is the author and cartographer of the books, *Detroit in 50 Maps* (2021) and *Great Lakes in 50 Maps* (forthcoming) from Belt Publishing. He is a regular mapping contributor to Detroit Public Television "Great Lakes Now," Model D Media, and the Detroit Free Press.

### **Description:**

Exploring the Great Lakes region defined by data, culture, and ecology - over the course of the past year, I've discovered new data about the region and had to dig other data up in order to represent our Great Lakes region.

## **Tidy Up Your Tiles: Spring Cleaning Web Maps**

### **Presenter Name:**

Treavon Clark

### **Organization:**

Ohio State University

### **Presenter Bio:**

I'm a GIS Analyst at The Ohio State University, where I'm responsible for the Esri infrastructure supporting administrative units. My work includes developing web applications, scripting, and maintaining our Enterprise Portal infrastructure and ArcGIS Online content. Outside of the GIS world, I'm passionate about coffee and exploring national parks.

### **Description:**

OSU's Administrative GIS Team (FITS) recently migrated to Esri's Experience Builder and, in the process, undertook a comprehensive audit of our web maps and related services. This presentation will share the lessons we learned from this experience, detailing how we consolidated redundant content, upgraded existing maps, and standardized our applications as we transitioned away from Web App Builder. We'll also discuss the unexpected benefits of this "spring cleaning" initiative, such as improved performance, simplified maintenance, and a more consistent user experience.



# From Biased Brains to Brilliant Decisions: How to Outsmart Your Own Mind and Conquer Data Chaos, "Modernizing Cuyahoga County Land Records"

## Presenter Name:

Dan Giersz and Jordan Edmunds

## Organization:

Cuyahoga Enterprise GIS Department

## Presenter Bio:

Dan Giertz: The first and only award winning Senior GIS Analyst for Cuyahoga County, and now the first and only Information Systems Analyst for the GIS Group, Dan's trailblazing career has spanned two decades across multiple GIS disciplines. When he is not administering County GIS systems he is providing modern solutions to various County departments, boards and commissions, and local municipalities.

Outside of work he enjoys reading (having recently finished reading all about Moties by Larry Niven, he's moved on to Dan Simmons and the Shrike), spending time outdoors with his wife and dogs, volunteering, and all things Cleveland sports. Jordan Edmunds: Jordan Edmunds has 10+ years working with GIS in both the private and public sector. Before fully immersing himself in the GIS world, he spent over a decade working as a geologist. Specifically, he spent 10 years as a micropaleontologist in the oil and gas industry based out of New Orleans, Louisiana. In his free time, he loves spending time with his wife, pup, and two baby girls. He enjoys going on weekend walks to 5 Points Café (the neighborhood coffee shop) and watching live music. He is also an avid gardener, growing a variety of vegetables and flowers and a cheese connoisseur, always on the lookout for new types to try.

Jordan Edmunds: Jordan Edmunds has 10+ years working with GIS in both the private and public sector. Before fully immersing himself in the GIS world, he spent over a decade working as a geologist. Specifically, he spent 10 years as a micropaleontologist in the oil and gas industry based out of New Orleans, Louisiana. In his free time, he loves spending time with his wife, pup, and two baby girls. He enjoys going on weekend walks to 5 Points Café (the neighborhood coffee shop) and watching live music. He is also an avid gardener, growing a variety of vegetables and flowers and a cheese connoisseur, always on the lookout for new types to try.

### Description:

Updating land records presents challenges such as outdated systems, data inconsistencies, and resource limitations, all of which can hinder efficiency and public access to vital information. One solution is the implementation of Esri's Parcel Fabric, a modern framework designed to streamline parcel management, improve accuracy, and enhance data integrity. This presentation explores how leveraging Parcel Fabric, along with process improvements and cross-sector collaboration, can help overcome these obstacles. By adopting innovative tools and strategies, Cuyahoga County can create a more reliable, transparent, and efficient land record system that better serves both government agencies and the public.

## **The Ohio Turnpike and Infrastructure Commission: A Look Back, Present Projects, and a Glimpse into the Future**

### Presenter Name:

Robert Erickson

### Organization:

The Ohio Turnpike

### Presenter Bio:

Robert is the GIS Program Manager for the Ohio Turnpike, where he leads the development and management of the organization's GIS initiatives. With over 35 years of combined experience in surveying, engineering, and GIS across both private and public sectors, Robert brings a wealth of expertise to the field. He holds a B.A. in Urban Studies from Cleveland State University.

Prior to his current role, Robert served as the GIS Coordinator for the City of Lakewood, Ohio, where his innovative planning and collaborative team approach played a key role in the city's recognition with the 2017 OGRIP Best Practice Award for their citywide enterprise GIS system.

### Description:

The Ohio Turnpike, a 241-mile stretch of highway connecting Pennsylvania to Indiana, may seem like a straightforward road, but it is layered with complexities and untapped potential. Despite being one of the most vital infrastructure assets in the state, the Turnpike's GIS capabilities were limited just a few years ago. In 2019, the Ohio Turnpike had fewer than five GIS maps and

applications—an astonishingly low number that left us trailing behind many state departments, counties, and municipalities in terms of technical advancements.

This session will delve into the fascinating and brief history of the Ohio Turnpike, shedding light on key milestones and the challenges that have shaped its growth. We'll examine how GIS has evolved over the last 50 years, while also offering a glimpse into how it will continue to drive transformation for the next half-century.

Attendees will hear about current GIS-driven projects that are transforming the Turnpike, including efforts to modernize infrastructure and implement cutting-edge solutions that address both present challenges and future needs.

By combining historical context with forward-thinking projections, we'll explore how GIS has become integral to the Ohio Turnpike's operations and decision-making. Although artificial intelligence (AI) is not yet part of our toolkit, we rely on Human Intelligence (HI) to power innovative GIS applications that enhance efficiency, safety, and operational effectiveness.

## **Expanding Broadband Access in Ohio and Beyond**

### **Presenter Name:**

Richard Kotapish

### **Organization:**

Geo-centric Consulting, Inc.

### **Presenter Bio:**

Mr. Kotapish is a seasoned GIS Project Manager with over 30 years of experience implementing geospatial solutions for local governments and conservation organizations. His public service career includes spearheading GIS programs for Lake and Geauga Counties, Ohio, and the City of Cleveland. He brings extensive expertise in project management, specializing in cadastral, imagery, and land-records-based data conversions, as well as geospatial application and database development and training.

Passionate about leveraging GIS for disaster response, Mr. Kotapish has provided Incident Command geospatial support during Stafford Act disaster events, including Hurricane Katrina (GISCorps), Superstorm Sandy, Hurricane Irene, and severe flooding with the State of Ohio IMAT. His international experience includes advising Vietnam during a U.N. Technical Advisory Mission, consulting for the Denmark Ministry of Taxation on GIS applications for their National Property Appraisal System, and contributing to functional requirements for Costa Rica's rain forest management program.

Mr. Kotapish has been a driving force in the GIS community for three decades, leading the GIS Users of Northern Ohio (GUONO) - a network of over 300 professionals dedicated to advancing geospatial technology.

**Description:**

GIS is crucial for pinpointing areas where to expand broadband access and bridging the digital divide. Ensuring equitable connectivity is essential for many reasons - enabling virtual healthcare, supporting remote learning, facilitating emergency medical access in areas without cell service, driving small business growth, and much more.

This presentation will explore the methods and analytical approaches used in siting telecommunications infrastructure, including towers and other assets. It will highlight the integration of GIS data, web applications, and commercial telecom solutions to optimize broadband expansion efforts.

## **Geospatial AI: starting with LLM fundamentals in precision viticulture**

**Presenter Name:**

Mark Guizlo

**Organization:**

Lakeland Community College

**Presenter Bio:**

Mark Guizlo is Professor and Chair of the Geography and Geospatial Technology Department at Lakeland Community College, in Lake County, Ohio. Mark teaches a variety of courses in general education geography and GIS and has been involved in national geospatial technology education efforts for many years. Mark earned his GISP in 2023 and was awarded a Lifetime Achievement Award by the National Center for Excellence in Geospatial Technology (GeoTech Center) in 2024. Mark is involved in efforts to adapt geography and geospatial education to changing needs, starting with his home program at Lakeland Community College. Mark is committed to experiential and hands-on learning, and to breaking down barriers between higher education and the geospatial industry, with a personal interest in precision farming and viticulture.

**Description:**

This presentation demonstrates the use of a Large Language Model (LLM) to identify and sort key characteristics in precision viticulture, focusing on new opportunities in spatial AI. I will start with my "known knowns" and my "known unknowns" to assess

important market dynamics in Ohio's wine and viticulture industry. I will identify constraints and opportunities in precision viticulture using spatial AI. Ohio's wine industry reflects broader patterns in the Eastern U.S.: growth, spatial fragmentation, and vulnerability to disease, climate, and weather hazards. Because geography is an important driver of the industry, precision geospatial technology has significant unmet potential to support the industry, starting with identifying new prospects for precision viticulture applications and exploring a potential spatial viticulture LLM.

## **Old Dog, New Tricks: Enhancing Everyday GIS Workflows with AI**

### **Presenter Name:**

Jim Branch

### **Organization:**

Geo-centric Consulting, Inc

### **Presenter Bio:**

Jim worked in the public sector as a GIS professional for 24 years with the last 7 of that stint as the Lake County GIS Director. Since 2022, he has worked in the private sector full-time and as a subcontractor with Geo-centric Consulting. He has kept one foot in the public sector as an elected Township Trustee for Kingsville Township in Ashtabula County.

### **Description:**

This presentation explores using AI (e.g. Claude, ChatGPT, Gemini) to assist with everyday GIS operations like converting data, running repetitive tasks, collecting data, developing code, and other mundane tasks like writing abstracts for GIS conferences. It will provide a handful of concrete examples and half-baked insights into this exploding technology. This isn't about GeoAI or hardcore geospatial analysis but more about leveraging AI to do menial tasks and tricking people into thinking you are more productive and smarter than you are.

## **Applying Python Automation to Geoprocessing Tools: A 3D Use Case**

### **Presenter Name:**

Treavon Clark

### **Organization:**

Facilities Information and Technology Services

### **Presenter Bio:**

I am a GIS Analyst for the administrative GIS team at Ohio State University. I use ESRI software daily, making applications and scripts. I maintain our Enterprise Portal infrastructure and ArcGIS Online content. I love board games, cat memes, and coffee.

### **Description:**

Part of the OSU GIS team's workflow is automating the ingestion of Revit models to 3D and 2D GIS. We will look at the scripts I made to make this automation. If you do not have 3D models, do not fret! You can still apply this workflow to recurse through files and run geoprocessing tools on them.

## **North Coast Geospatial Information and Data Exchange – Regional Data Collaboration for Cuyahoga County**

### **Presenter Name:**

Tom Fisher

### **Organization:**

Cuyahoga Enterprise GIS Department

### **Presenter Bio:**

Tom Fisher has over thirty years of experience in the private and public sectors of Information Technology, Geographic Information Systems, and Planning. He currently holds the position of Enterprise Geospatial Technologies Administrator. He was previously employed by the Muskingum Watershed Conservancy District and Wilbur Smith Associates. Tom is a GIS Professional (GISP) and Certified Planner (AICP).

He manages the day-to-day operation of the Enterprise Geospatial Technologies group consisting of a Senior Information Systems Analyst, Information Systems Analysts and Information Systems Technicians. He is a strong proponent of geospatial partnerships and regional data collaboration. In his free time, he enjoys spending quality time with his family, climbing mountains, and running marathons.

### **Description:**

Tom Fisher's presentation will introduce the North Coast Geospatial Information and Data Exchange (NCGIDE), a collaborative initiative designed to overcome the challenges of fragmented geospatial data silos within Cuyahoga County. By establishing a shared framework and platform for local government, the NCGIDE facilitates access to and utilization of authoritative geospatial data. This

regional cooperation aims to enhance efficiency, reduce redundancy, improve data-driven decision-making, and ultimately support better planning and services across the county, with the presentation covering the NCGIDE's structure, successes, and future direction.