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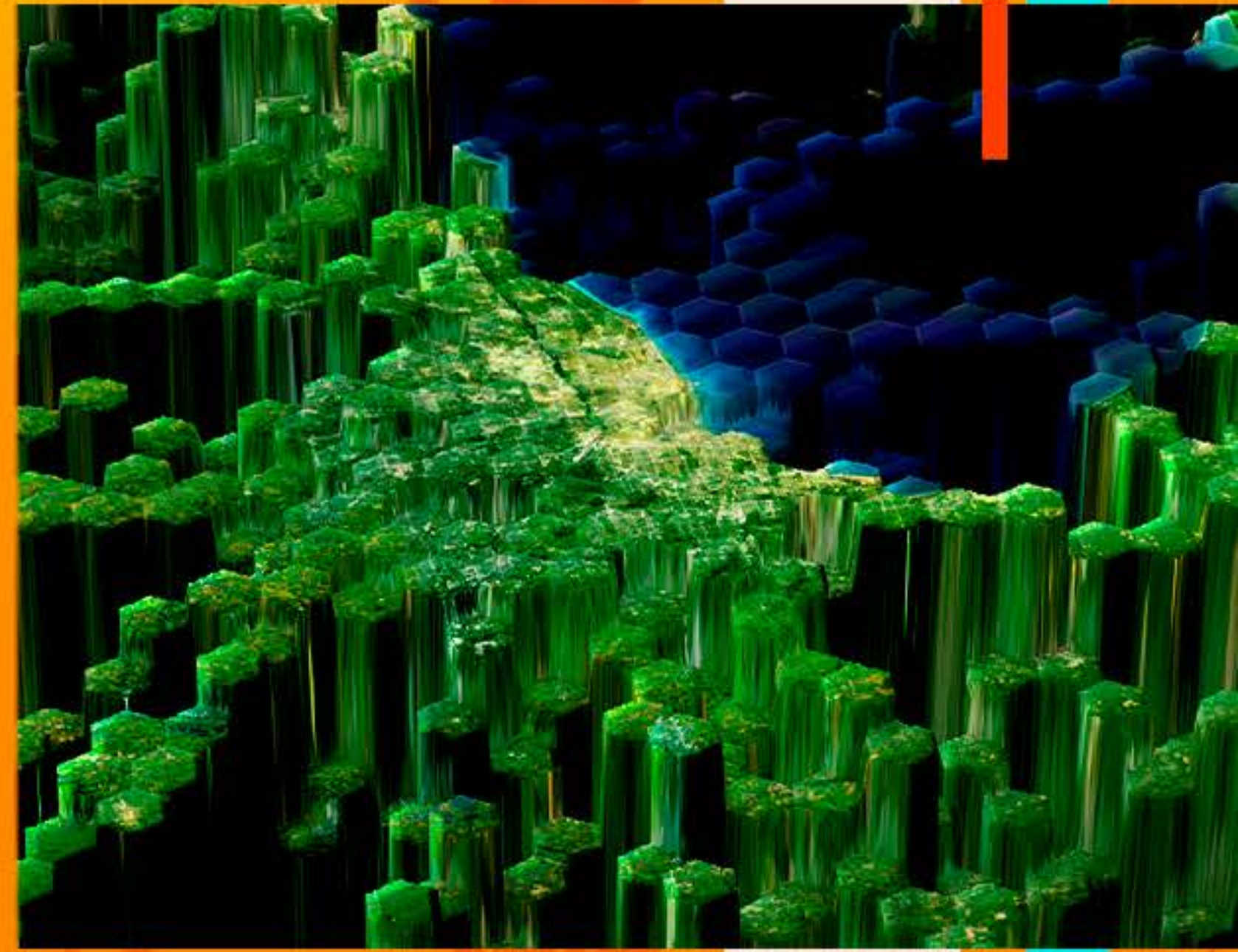
GIS Has Changed

What are the key takeaways
for educators?



Data as services... not shapefiles

Discover, publish, share, and manage real-time, structured, or unstructured data—in spreadsheets, CSV files, or cloud storage—as web layers and services. Students can move beyond shapefiles to understand how geographic information system (GIS) technology is powered by dynamic, interconnected services.



Lessons and Resources

Build a Mobile Survey

Help Volunteers Clean a Beach

Clemson Inspires Campus-
Wide GIS Use

1

Configurable web applications...not map layouts

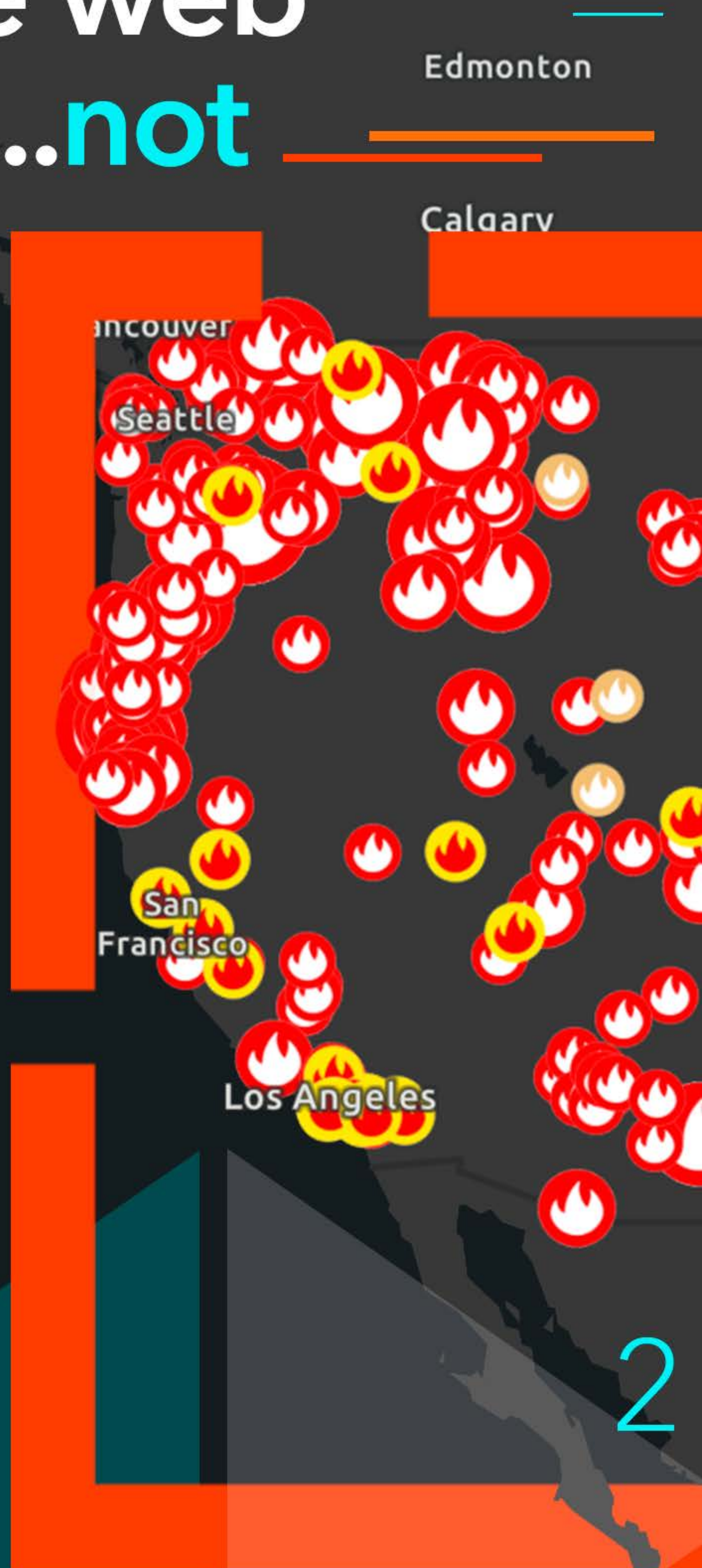
Build configurable, responsive web and mobile applications. Move beyond the static maps that have been the heart of GIS for decades. Modern GIS is Web GIS, powered by lightweight apps that meet the needs of a digital-native audience.

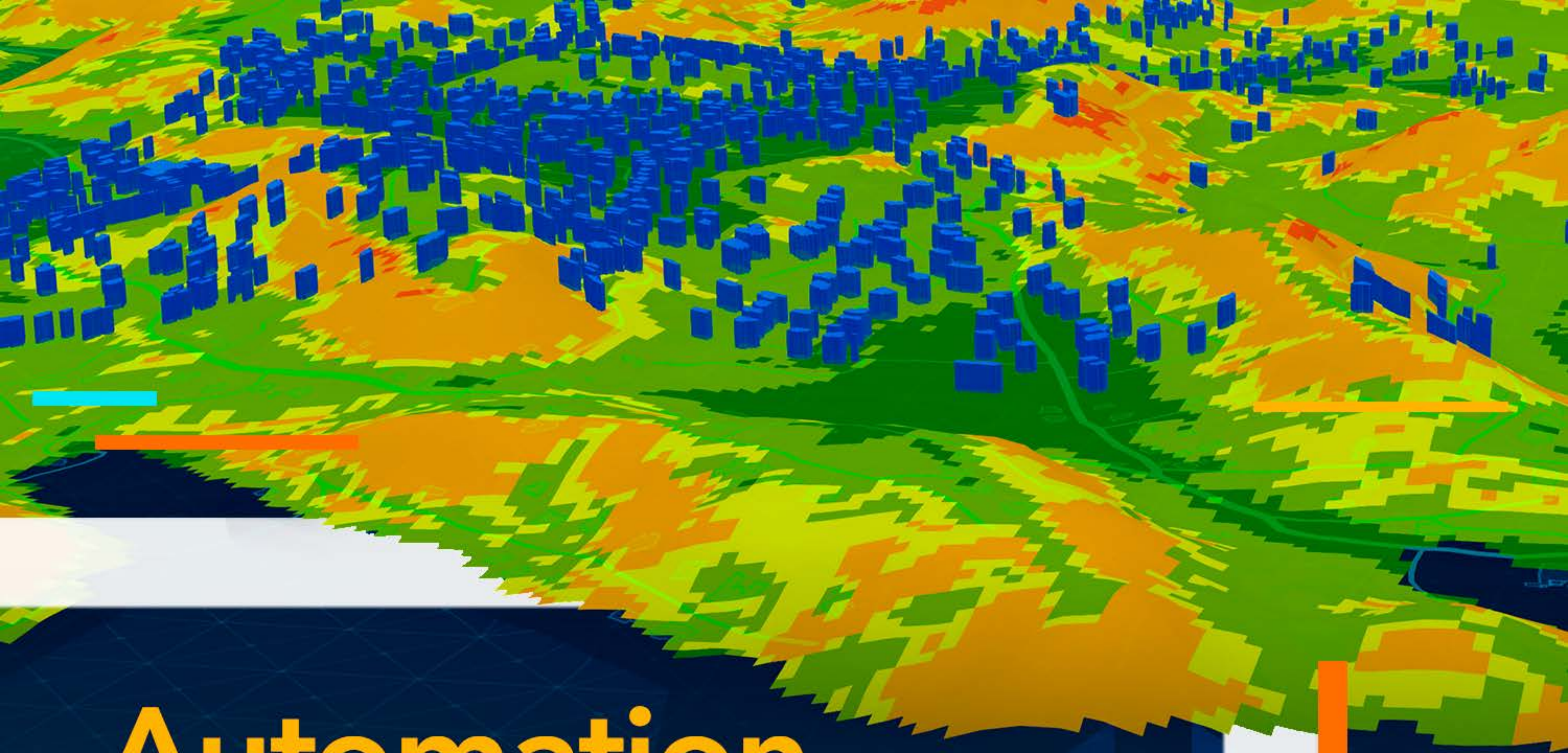
Lessons and Resources

Make a Dashboard to Monitor Wildfires

Use Analysis to Visualize Food Deserts

How Monroe Community College Built a Microcredential





Automation and scripting

Publish data, automate workflows, provide notifications, update and synchronize data, and more. These skills have always been part of GIS, but they have become even more critical in the fast-paced data and information space.

Lessons and Resources

Calculate Risk to Toxic Exposure

Identify Landslides with Deep Learning

Deep Learning at the University of Pittsburgh

3

Cloud infrastructure and architecture

Teach students about web architecture and the Web GIS information model. Students need to know the underpinnings of modern GIS. It's critical to understand and troubleshoot issues in cloud computing platforms and databases to keep systems running.

Lessons and Resources

ArcGIS API for Python

Developer Tutorials

GIS + Computer Science Degree at the University of North Texas



Modern GIS is Web GIS

Thousands of cities, agencies, nonprofits, and businesses depend on Web GIS. Moving the locus of GIS from the desktop to the web makes it mobile, automated, responsive, interconnected, cloud based, and configurable—these themes are an integral part of a modern GIS curriculum.

- **Data as services...not shapefiles**
- **Configurable web applications...not map layouts**
- **Automation and scripting**
- **Cloud infrastructure and architecture**

Lessons and Resources

Modern GIS

Modern GIS Learn Lessons

Esri Academy