Wednesday, December 1
12:30 - 1:30pm CST
Hybrid Event

Register for Zoom link: https://bit.ly/HalpernLynn-Colloquium

In-Person Location:
1155 E. 60th St.
Room 140C
Lunch will be provided

A New Forever Open Platform for Spatial Data Analysis

Stuart Lynn
Research Director and Senior Principal Software Engineer at the Center for Spatial Data Science and Herop

Dylan Halpern
Senior Software Engineer for the US Covid Atlas at the Center for Spatial Data Science and Herop

Geospatial visualization is even more complex, and researchers need to consider a wide range of spatial scales and complex boundaries of polygons, the underlying uni- or bi-variate nature of maps, difficulties of diverse and unfamiliar file formats (or databases), statistical and visual pitfalls like the ecological problem (MAUP), lack of errors bars, etc. Recent efforts in open source and start-up spaces provide a hopeful outlook. Open source development in analysis and visualization have provided powerful tools like geoda (analysis and modeling) and deck.gl (visualization)—but such tools are sometimes technically inaccessible to analysts. Start-up ventures offer clear insights and low-code tools for geospatial data, but longevity, data ownership, and academic support may be uncertain.

To attempt to resolve these issues, two domains have opened up over the past 10 years.

In this talk Lynn and Halpern present the current state and future vision for a suite of open source tools that they are developing to try and bridge this divide. Over the course of the next year their goal is to develop an extensible, modifiable suite of tools that can be used alone or together as part of a cohesive platform to make finding and sharing geospatial based insights easier. In this talk in particular they will focus on:

**Matico Dashboards:** A quick and easy way to build out interactive applications that can pull data from multiple different sources to produce maps, charts and explanatory text with zero coding.

**GeoJay:** A service to easily identify and join tabular data to geospatial administrative boundaries.

**Matico Server:** A federated data management tool which allows individuals and communities to collectively generate, edit and share geospatial data while retaining ownership of that data.

They will contrast our approach with existing proprietary platforms, particularly emphasize our focus on community management, data ownership and stewardship, collaborative investigation and extensibility.