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Abstract Visualization of Spatial Distributions

This new visualization technique simplifies the complex spatial distribution of big datasets by representing map points as segmented boundaries, making it easier to analyze and overlay different categories of data over time.

Visualization of spatial distribution is a widely used technique used to visualize data on a map. Currently people use heat maps, or points on a map, for the visualization of spatial distribution of objects on a 2D map. However, when there are many different types of objects existing on the map the traditional methods are hard to read or incapable of showing multiple categories of data. This makes it almost impossible to overlay multiple layers on top of each other, making comparison in distributions difficult.

Researchers at Purdue University have developed a visualization technique that represents the spatial distribution of big datasets with a simple and concise approach. This technology simplifies points on a map into boundaries with various segment widths, making spatial distributions of a large number of objects in different groups or over time easy to understand. Objects can be grouped by type or time, allowing users to see temporal changes in distributions.

Advantages:

-Simple and easy to understand

-Possibility to overlay objects by type or time

Potential Applications:

-Data visualization

-Spatial distributions with large number of objects

TRL: 4

Intellectual Property:

Technology ID

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Category

Artificial Intelligence & Machine Learning/Computer Vision & Image Recognition

Robotics & Automation/Perception & Sensing

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