



PlanetSense SeGraph Technology

Real-time geospatial knowledge graph built from open source data

PlanetSense SeGraph technology conflates point-of-interest (POI) data with ground-level image data sets to help improve disaster response, critical infrastructure resilience, and land-use mapping.

CHALLENGE

With the widespread use of smartphones and population location sharing, there is a plethora of POI data and geotagged images available. But for ideal, precise location intelligence, researchers and end users need to simultaneously analyze both POI and image datasets to generate a joint representation for better land use characterization.

APPROACH

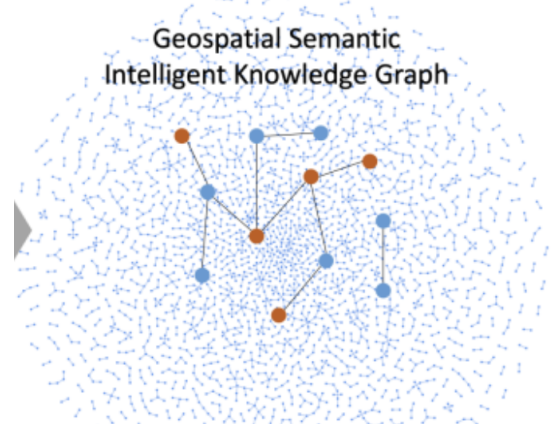
Given the challenge of different geospatial POI embedding or representation of features and geo-tagged ground-level imagery data types, the PlanetSense SeGraph technology automatically conflates POI and ground-level images data into a joint semantic knowledge graph. This joint embedding or representation can apply to several downstream applications within national security, disaster management and response, human and population dynamics, and urban design.

OUTCOMES

Previous and expected future outcomes include

- Harnesses machine learning for complex, rich knowledge graph generation
- Transcends geospatial proximity constraints to include semantic relationships
- Provides real-time data for national and human security applications such as disaster response
- Enables improved land planning and mapping

Geospatial Semantic Intelligent Knowledge Graph



Research Focus

PlanetSense SeGraph conflates POI data and geotagged images for a comprehensive GEOINT knowledge graph

- Location intelligence
- National security
- Population dynamics



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