

Data Modalities



Textual Data

NL Queries, QA, Urban Policy Docs



Tabular & Meta-Data

Census Demographics, Socioeconomic Indicators, Regional Stats



Vector Geospatial Data

Shapefiles, GeoJSON, POIs, Polygons, CBGs



Raster & Image Data

Satellite Imagery, SAR, VIIRS/DMSP, SRTM/ASTER NDVI/EVI Vegetation Indices



Time-series Signals

GPS Trajectories, Climate, LBSN, Traffic Speed, Mobility Traces, Check-in

Agentic Capabilities



Planning & Reasoning

Goal Decomposition & Multi Step Analysis



Tool Use

Function Calling, GIS Libraries, SQL Engines, Vision Encoders, Maps



Knowledge Retrieval

RAG, PostGIS Functions, GeoPandas Workflows



Memory & State Tracking

Long/short Memory, User Interactions, Historical Context

Application Landscape



Geospatial QA



Code Automation



Remote Sensing



Geospatial Optimization



Urban Planning