Students in UB MS in GIS program receive comprehensive training on spatial analysis, spatial statistics, geocomputation, spatial data science, and GeoAI.

Students can learn the following programming languages and related spatial analysis packages:

Programming languages and packages	Courses (professors)
R programming language with various spatial statistics and spatial data science packages *(including packages, such as sf, sp, rgdal, raster, ggplot2, geoR, gstat, GISTools, tbart, fields, etc.)*	GEO 507: Spatial Optimization (Yoo) GEO 509: Multivariate Stats (Aldstadt) GEO 511: Spatial Data Science (Wilson) GEO 577: Geostatistics (Yoo)
Python programming language with various spatial data analysis and GeoAI packages *(including packages such as geopandas, rasterio, shapely, fiona, scikit-learn, tensorflow, keras, etc.)*	GEO 503: AI for Geospatial Applications (Hu) GEO 503: GIS and Machine Learning (Hu) GEO 655: Advanced Topics in Geographic Information Systems (Bittner)
Web-based programming languages *(Including HTML, JavaScript, CSS, Mapbox, Leaflet, D3.js, Google Maps JavaScript API, etc.)*	GEO 551: Cartography and Geographic Visualization (Stephens) GEO 503: Web programming for GIS (Tao) GEO 503: Mobile GIS (Tao)