

SPATIAL DATA SCIENCE

Learning Outcomes

Master of Science (M.S.)

Explain and communicate the distinguishing characteristics of spatial data, including how spatial data are created, sensed, stored, manipulated, and represented distinctly compared to other data types.

Practice the science of spatial analysis and modeling, leveraging advances in geocomputation, geovisual analytics, open geospatial data, and spatial thinking to develop ethically responsible and reproducible workflows across the lifecycle of spatial data science problems.

Architect, implement, and deploy solutions that advance the state of the art in spatial data science to solve problems by leveraging and integrating contemporary computational, spatial data, and spatial visualization frameworks, including open source options.

Research, critique, and visually communicate spatial data quality and map spatial analysis results in support of analytical reasoning and ethical decision making in a variety of data intensive spatial data science contexts.