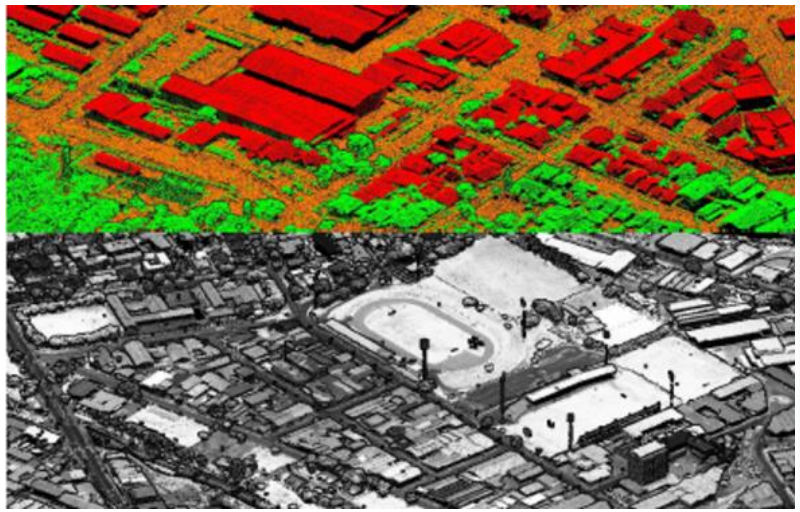
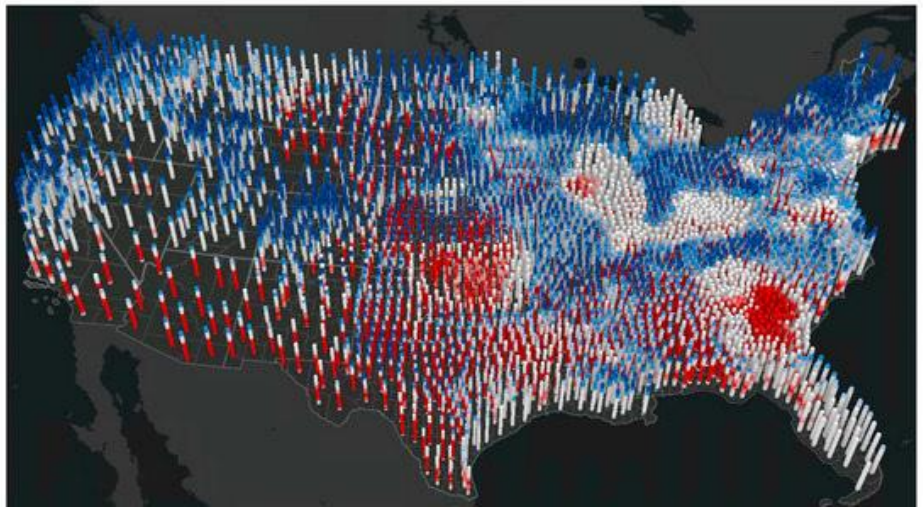
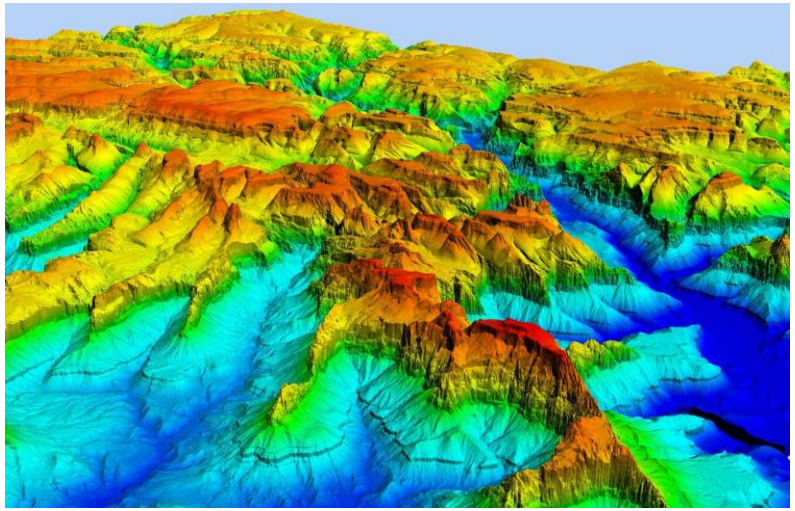
Geospatial Information Science and Technology & Geospatial Artificial Intelligence (GIST+GeoAI)

Graduate Certificate








GEOSPATIAL INFORMATION SCIENCE AND TECHNOLOGY
& GEOSPATIAL ARTIFICIAL INTELLIGENCE
GIST+GeoAI GRADUATE CERTIFICATE

Visit our Website for Video and Information

https://www.utep.edu/science/gist/about/gist.html

Applications

- GIS Mapping and Analysis
- Machine Learning and GeoAI
- Remote Sensing
- Uncrewed Aerial Systems
- Image Processing
- Geospatial Intelligence
- Geo-Health
- Geospatial Models

How to Enroll

- Concurrent graduate students enroll free just sending an email to Professor Hernan Moreno moreno@utep.edu to evaluate feasibility.

- External students please apply via graduate school

  We have a YouTube video tutorial on how to apply to Graduate School.
  https://www.youtube.com/watch?v=MZgW8Bn14bo

  This is where you create an account and start your application process 👇
  https://utep.elluciancrmrecruit.com/Apply/Account/Login?ReturnUrl=%2fApply

Study Cases in:

- Biology
- Environmental & Natural Resources
- Urban Planning
- Public Health & Epidemiology
- Civil & Environmental Engineering
- Business Logistics
- Geology & Mining
- Agriculture & Food Systems
- Risk and Disaster Preparation
- Archaeology & Cultural Heritage

Potential Careers with a Graduate GIST+GeoAI Certificate

- Industry & Government Roles
- GIS & GeoAI Analyst/Specialist
- Remote Sensing Analyst
- Machine Learning Specialist
- Geospatial Data Scientist
- Cartographer/Visualization Specialist
- Geospatial Software and App Developer
- Sector-Specific Roles
- Environmental GeoAI Conservation Specialist
- Climate Risk Modeler

Potential Careers with a Graduate GIST+GeoAI Certificate

- Mining & Energy: GeoAI Exploration Analyst
- Environmental Compliance Analyst
- Agriculture: Precision Agriculture GeoAI Techniques
- Public Health: Spatial Epidemiologist
- Health GeoAI Analyst
- Emergency Management: AI-Driven Disaster Response
- Research in Academia
- Research Associate
- Lab/Field Data Manager
- PhD or MSc pathway with advanced geospatial skills

Description

- 15 Credit Hours to Earn Certificate
- If concurrent graduate student, credits double count towards degree.
- Two core courses (6 credits)
- Three Electives (9 credits)

Core Courses (6 credits)

GEOL5321/6331 Introduction to GIST & GeoAI
(taught every semester)

GEOL5322/6322 GeoAI & Advanced GIST
(only taught in the Spring semester)

Electives (choose any 3 for 9 credits)

GEOL5303/6303 AI: Geospatial Models & Technology
GEOL5323/6333 Spatial Analysis in Earth & Environmental Science
GEOL5324/6324 Machine Learning in Geoscience
GEOL5375/6375 Quantitative Techniques in Geological Sciences
GEOP5335/6335 Introduction to Remote Sensing
GEOP5336/6336 Digital Image Processing
EE5372/6372 Image Processing
EE5373/6373 Intro to Remote Sensing Systems
BIOL5333/6333 Scientific Visualization
BIOL5363/6363 Spatial Ecology
INSS5312/6312 Commercial Imagery
INSS5355/6355 Geospatial Intelligence
SOCI5363/6363 Environmental Justice
SOCI5381/6381 Cartography and Visualization
AAAA5NNN/6NNNN Directed or Independent Study, Topics, Advanced or Special Topics:

Must be related to GIST or GeoAI and require prior approval from the program director.

https://www.utep.edu/science/gist/program/program.html