

# Applied GeoAI Certificate

GeoAI — geospatial artificial intelligence — applies AI and machine learning to location-based data in order to improve understanding, analysis, and decision-making in myriad fields. GeoAI connects spatial information with predictive modeling and automation to reveal patterns that support more informed planning and problem-solving. The **Certificate in Applied GeoAI**, the first of its kind in the region, focuses on building expertise in GeoAI in an AI-forward job market. Learners in this program will gain skills applicable to the field, such as data management, imagery analysis, and locational intelligence, with a focus on practical application in the job market. The certificate is designed for GIS professionals who want to expand their skills in GeoAI and imagery analysis, for students with prior GIS coursework seeking deeper specialization, and for professionals in fields such as real estate, business, or data science who want to integrate a spatial component into their work. Upon completing the Applied GeoAI certificate, students will have developed skills in Python, geodatabase management, and imagery analysis which would make them competitive in the geospatial field in the St. Louis region.

This program is completed entirely online.

Contact: CAPS  
 Phone: 314-935-6700  
 Email: caps@wustl.edu  
 Website: <https://caps.washu.edu/programs/certificates/certificate-in-applied-geoai/>

## Requirements

# Certificate in Applied GeoAI

## Required Courses: 13 units

Code	Title	Units
CAPS-GIS 3000	Advanced GIS	3
CAPS-GIS 4035	Applications in Imagery Analysis	3
CAPS-GIS 4505	Advanced Imagery Analysis	3
New course coming soon	Introduction to GeoAI	3
New course coming soon	GeoAI Portfolio	1
<b>Total Units</b>		<b>13</b>

## Elective Courses: 3 units

Learners choose from the following:

Code	Title	Units
CAPS-GIS 3010	GIS Programming	3
CAPS-GIS 4010	Spatial Data Modeling and Design	3

Other courses with approval.

## Prerequisites

Students should have completed Introduction to GIS and Programming with Python or have equivalent experience in GIS and Python to pursue this certificate.

Code	Title	Units
CAPS - DATASTUDIES 2305	Programming With Python	3
CAPS-GIS 2000	Introduction to GIS	3

*This program is offered either mostly or fully online. Students entering the U.S. on an F-1 or J-1 Visa must enroll in a program full time. F-1 students are only permitted to enroll in one online course per semester and J-1 students may only enroll in non-credit online courses that do not count toward their degree program. CAPS cannot guarantee face-to-face enrollment options each semester of full time enrollment, therefore cannot issue an I-20 or DS 2019 to F-1 and J-1 students for this program. If you are an F-1 or J-1 student and wish to enroll in a CAPS program while here on a Visa, please contact our recruitment team to discuss your options for face-to-face program enrollment. F-1 and J-1 students should not enroll in online courses or programs without first consulting the university's Office for International Students and Scholars (OISS).*