

**Open PhD position in Geomatics/GIS at the University of Florida**

December 18, 2024

The Geomatics Program at the University of Florida is recruiting one PhD student to begin in either Summer or Fall 2025 semester.

**Research area:** AI-Driven Geospatial Data Analysis

**Research scope:**

The integration of Artificial Intelligence (AI) with geospatial technologies, known as GeoAI, is revolutionizing geodata science. This synergy drives innovations in the mapping, extraction, generation, and analysis of spatial data, providing advanced tools for better understanding geographic patterns and trends. Multimodal AI systems, including Multimodal Large Language Models, are capable of simultaneously interpreting and generating content across a range of media (e.g., imagery, text, video, charts), enabling a richer and more comprehensive understanding of spatial phenomena. Crowdsourced spatial data, including biodiversity photo collections, sports app location data, online reviews, social media posts, web searches, and street view images, is often unstructured and complex, making it ideal for GeoAI techniques. By employing data mining and data conflation methods, GeoAI can enhance the accuracy, completeness, and reliability of these datasets. This PhD position will focus on leveraging AI-driven approaches to improve the analysis, usability, and interpretation of large-scale geospatial datasets, with a particular emphasis on human behavior, mobility patterns, and the enhancement of data quality.

**Preferred qualifications:**

- Master's degree in Geographic Information Science, Computer Science, Statistics, or related quantitative discipline
- Proficiency in computer programming (e.g., Java, R, Python)
- Hands-on experience with spatial databases (e.g., PostgreSQL/PostGIS) and GIS software
- Foundational knowledge of Linux operating systems
- Familiarity with AI methods and/or crowd-sourced data analysis techniques
- Excellent communication skills, both spoken and written, in English

**Program information:**

The PhD candidate will join an established program at the University of Florida, with the goal of completing their doctoral degree within a four-year timeframe. UF is currently ranked 5th among public universities in the United States. The PhD research will be conducted at UF's Fort Lauderdale Research and Education Center ([FLREC](#)), located in the southeastern coastal region of Florida, near Miami. This position offers a competitive annual stipend, tuition waiver, and health insurance benefits.

**Application:**

Interested candidates should email their CV along with a brief statement outlining why they are an exceptional fit for this position to Dr. Hartwig Hochmair at ([hhhochmair@ufl.edu](mailto:hhhochmair@ufl.edu)). Applications will be reviewed starting in January 2025 and will continue until the position is filled.