

Ph.D. Assistantship: Geospatial Artificial Intelligence (GeoAI) and Forest Health

College of Forestry, Agriculture and Natural Resources, University of Arkansas at Monticello

The College of Forestry, Agriculture & Natural Resources at the University of Arkansas at Monticello is seeking applicants for a Ph.D. Assistantship available beginning August 16, 2026. The assistantship is half time and carries an annual stipend of \$27,000.

Project: Pine forests across Arkansas and the Southeastern U.S. are facing an escalating crisis driven by brown spot needle blight (*Lecanosticta acicola*) and other fungal pathogens. Recent research has documented explosive disease progression, with the number of infected trees increasing nearly fourfold in a single year at specific study sites. This project addresses the urgent need for monitoring systems capable of early detection before catastrophic losses occur.

The primary goal of this project is to develop a comprehensive framework using satellite data (Sentinel-1, Sentinel-2, Landsat), UAV-based multispectral sensors, and LiDAR to detect and predict disease dynamics across Arkansas, Mississippi, and Louisiana.

Requirements: Must hold or qualify for a master's degree in a related field from an accredited university. A student with a Bachelor of Science and an exceptional academic or research record may be admitted to the Ph.D. program in the College of Forestry, Agriculture, and Natural Resources if the Ph.D. Student Admissions Committee for the chosen concentration and the CFANR administration approve the application. Must have a minimum GPA of 3.5 or higher. Must have a combined GRE score of at least 300 (for students without an undergraduate or graduate degree in forestry, natural resources or a related field). Proficiencies in GIS and remote sensing analysis and experience or interest in computer programming (Python, R) are preferred.

Location and Facilities: The College of Forestry, Agriculture & Natural Resources is located in Monticello, Arkansas in the southeastern portion of the state. The Arkansas Forest Resources Center is also headquartered here, and is administered by the University of Arkansas System Division of Agriculture. The Arkansas Forest Resources Center is the research and extension arm for forest-based programs within the State. The College and Center maintain several state-of-the-art laboratories (hydrology, soil, quantitative analysis, silviculture, wildlife ecology & management) available for graduate research and education. The College also has the Arkansas Center for Forest Business, Arkansas Forest Health Research Center and Snowden Waterfowl Center of Excellence subunits committed to research, education and outreach associated with forest economics and operations, forest health and waterfowl and wetlands, respectively.

Application & Additional Information: Applicants must submit resumé, unofficial transcripts of all previous college-level coursework, and a letter of intent (2 pages in length) indicating areas of interest, background and career goals to CFANR@uamont.edu. Reference position #2026-002 on all materials. Applicants must apply to the University of Arkansas at <https://www.uamont.edu/admissions> before they can be considered for an assistantship. For submission questions, contact Rhonda Parris at parris@uamont.edu. For position information, contact Dr. Hamdi Zurqani (zurqani@uamont.edu) or Dr. Laura Sims (SimsL@uamont.edu).