Zhao Nano Lab

Department of Physics and Astronomy
University of Georgia

UNIVERSITY OF GEORGIA

GRADUATE STUDENT RECRUITMENT

AI Spectroscopy

Machine Learning and AI for Spectral Analysis and Discovery

Join the Zhao Nano Lab to develop AI-powered platforms, foundation models, and community resources for spectroscopy, enabling rapid spectral analysis, molecular identification, and materials discovery.



Future Research Projects



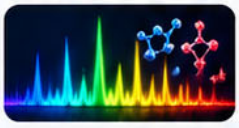
SpectraGuru Development
Build an open-source ecosystem for spectral analysis, data processing, and AI modeling



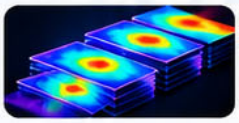
Foundation Model for Spectroscopy
Develop large, general-purpose models for multi-modal spectral data and cross-domain tasks



AI-Spectroscopy Community
Build a collaborative, open community with data, models, tools, and benchmarking resources

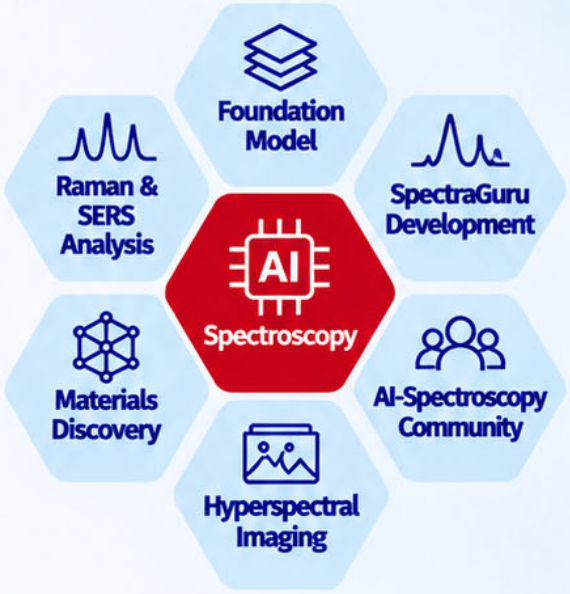


AI-Enabled Spectral Analysis
Machine learning for Raman, SERS, fluorescence, and IR spectra



Materials Discovery & Identification
AI-guided discovery, molecular identification, and hyperspectral imaging

Research Topics



Why Join Us?

- Work at the forefront of AI, spectroscopy, and materials science
- Access to state-of-the-art spectroscopic systems and computing resources
- Collaborative and supportive team
- Strong publication and career development

We Are Looking For

- Motivated Ph.D. students
- Backgrounds in physics, optics, computer science, data science, or related fields
- Interest in AI/ML, spectral analysis, foundation models, and community building

Apply Now

Learn more about our research and application at:

www.zhao-nano-lab.com