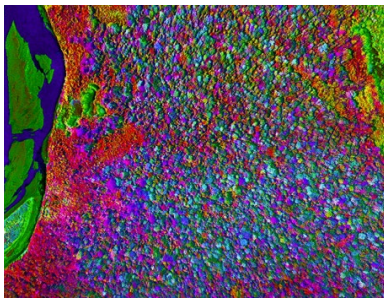
Center for Global Discovery and Conservation Science
Arizona State University

Position Opening
Postdoctoral Research Scholar
Global Airborne Observatory
20 Nov 2025




Who we are

The Arizona State University Center for Global Discovery and Conservation Science (GDCS) is an enterprising organization that conducts research on Hawai'i Island, focused on land and reef ecosystem ecology, conservation, and management. GDCS maintains a diverse staff, multiple marine, aviation and satellite assets, land-based facilities, and research operations to achieve success in environmental discovery, conservation, and management sectors. We own and operate the Global Airborne Observatory (GAO), which is widely recognized as the most advanced Earth mapping and diagnostics program in the civil sector worldwide. We also work closely with Planet Labs PBC and their new Tanager imaging spectrometer satellite. Combining the GAO and Tanager, we seek personnel to help shape advanced scientific solutions using Hawai'i as a model for subsequent global-scale applications. Past examples of our approach include forest carbon and biodiversity mapping, which have then gone global, as well as the Allen Coral Atlas, the world's first and only coral reef monitoring system.

Who you are

Our Center seeks a Postdoctoral Research Scholar to participate on a small team of specialists combining the latest Artificial Intelligence (AI) methods with advanced airborne and satellite-based imaging spectroscopy (hyperspectral imaging) of land use and land cover. Our applications focus specifically on forest composition, land-use composition, human infrastructure, and water quality. The ideal candidate enjoys working within a close-knit team, bringing her/his knowledge of AI-specific approaches to our advanced imaging

spectroscopy program. This position will report to the Center Director, who serves as the lead PI for the project.

Your role

- Conceptualize and implement AI-based algorithms to compare airborne and satellite-based imaging spectrometer measurements in a wide range of land applications
- Publish in peer-reviewed journals as both a first author and a co-author
- Present and communicate progress and outcomes in team meetings and scientific conferences

Minimum Qualifications

- PhD degree with demonstrated excellence in advanced AI-based analysis methods, including and exceeding those based on traditional convolutional neural networks
- Demonstrated understanding of statistical and deep learning / AI concepts, such as CNNs and visual transformers, and how they are applied to spatial data
- Demonstrated background working with machine learning toolkits in Python: scikit-learn for traditional tools and a deep learning toolkit such as tensorflow, pytorch, or transformers
- History of producing peer-reviewed publications
- Command of English language in both written and oral form and the ability to work in the United States.
- Willingness to work in a small, close-knit team

Desired Additional Qualifications

- Demonstrated background in hyperspectral applications
- Strong computer programming skills as applied to spatial data

Place of Work

- ASU Center for Global Discovery and Conservation Science, 60 Nowelo Street, Hilo HI 96720 USA

Salary and Expenses

- Salary will be based on experience and will include a benefits package
- A fixed moving expense will be covered to Hilo, Hawaii USA

Interested candidates should send a cover letter, curriculum vitae, and contact information for two external references to GDCS Assistant Director Andrea Scott: andreascott@asu.edu