

Remote Sensing/Spatial Ecology Intern

The Conservation GIS Lab (<https://nationalzoo.si.edu/conservation-ecology-center>) at the Smithsonian Conservation Biology Institute (SCBI) is seeking interns to start immediately. The internship project will focus on exploring the application of remote sensing space-borne lidar data (GEDI) for exploring vegetation types (understory bamboo and woody invasive plants). The intern will gain experience with the analysis of GEDI data, spatial data analysis, and scientific communication.

The learning objectives:

- Pre-processing forest survey data and spatial datasets at a local or a regional level
- Extracting GEDI waveform shots using Python (preferred) or R
- Extracting and analyzing GEDI metrics
- Building predictive spatial models for vegetation type classification using statistical analysis and machine learning algorithms.

Required Skills & Experience:

- Must be able to dedicate 40 hours per week.

- Strong background with programming software (Python/R/Matlab/Google Earth Engine/Javascript etc.).

- Knowledge of GIS (preferably ArcGIS or QGIS) and/or remote sensing analysis is desirable.

- Strong writing skills

- Ability to conduct research independently and yet collegially in a team environment.

Stipend:

This is a paid internship. A monthly stipend of up to \$1,500 is offered (dependent on education level, coursework, and skills). If the COVID-19 policy changes in the future, there will be free dormitory-style housing on SCBI campus provided for interns. During the remote internship period, interns will be responsible for obtaining access to a personal computer and reliable high-speed internet.

Location & terms of appointment:

Due to COVID-19, this internship will be conducted remotely during the first several months. The intern will be part of a virtual cohort of interns at the Center with regular online meetings and additional opportunities to interact with fellow interns and researchers. Positions are a minimum of six months, beginning as soon as possible. Priority will be given to candidates who can commit for longer periods.

How to apply:

The SOLAA application system will be open until the position is filled. You are required to upload a CV and a cover letter on SOLAA. Your cover letter should contain ALL the following information: 1. statement of interest 2. potential start date and the duration of time you are available for the internship. 3. contact information for three references. Please elaborate on your programming experience and skill as much as possible. Minimum availability of 6 months is required. If selected, you might be expected to go to a Smithsonian or police facility to get finger printed for background check purposes.

The Smithsonian Conservation Biology Institute is located at the north entrance of the Shenandoah National Park, about 60 miles west of Washington, D.C., in Front Royal, VA. SCBI's mission is to advance the conservation of biological diversity. In meeting the Smithsonian Institution's mandate, SCBI increases knowledge through investigations of threatened species, habitats, and communities and disseminates knowledge through advanced studies, professional training, and public outreach.

To apply, you need to register on the Smithsonian SOLAA system at (<https://solaa.si.edu/solaa/#/public>), and search for "Internship" under "National Zoological Park" the program name is Conservation GIS Internship Program.

Note. Due to a high volume of applications received, we are unable to contact each applicant individually regarding the status of their application. The SOLAA application system will provide the most updated status regarding individual applications and the position.