



Unique Job Opportunities at the Carnegie Institution for Science

Carnegie Airborne Observatory

<http://cao.ciw.edu>

CLASlite Deforestation Mapping Program

<http://claslite.ciw.edu>



Position Announcement:
Postdoctoral Researcher in Hyperspectral Remote Sensing of Tropical Forests
Carnegie Airborne Observatory

The Carnegie Institution for Science is a private organization conducting research for the benefit of humanity. Carnegie's Department of Global Ecology (<http://dge.ciw.edu>) undertakes large-scale, cutting-edge scientific studies on the interactions between the Earth's land, atmosphere and oceans, with the goal of understanding the ways these interactions shape the behavior of the Earth system, including its responses to climate, land-use and biodiversity change.

Carnegie's CAO program (<http://cao.ciw.edu>) combines 3D spectroscopic and laser imaging with unique scientific approaches to study, explore, and conserve ecosystems at large geographic scales. The CAO has a rich and growing heritage in exploring uncharted territory on our planet using airborne LiDAR, hyperspectral sensors, and other techniques, often leading to surprising discoveries of broad interest to science and society.

Carnegie seeks a **Postdoctoral Researcher in Hyperspectral Remote Sensing of Tropical Forests** to join the Carnegie Airborne Observatory (CAO) team of the Department of Global Ecology.

Responsibilities

- Leadership in research on hyperspectral imaging of tropical forest functional and biological diversity in Central and South America
- Methods development for spectroscopic analysis of CAO data, with a focus on tropical ecosystems
- Leading as well as supporting others in scientific applications of hyperspectral data in a variety of projects
- Leading and participating in the development of scientific reports, journal papers, and presentations

Qualifications

- PhD degree in remote sensing, with strong experience in hyperspectral remote sensing of terrestrial ecosystems
- Proficiency in hyperspectral data processing (ENVI, PLSR, SMA)
- Ability to program for geospatial applications (e.g. R, IDL, C, Python)
- Strong communication skills in English

The position will be based at Carnegie's Department of Global Ecology on the campus of Stanford University. Salary will be determined based on experience, and the position includes a highly competitive benefits package.

Please apply at <https://jobs.carnegiescience.edu/>
no later than September 15, 2013.

Carnegie is an equal opportunity employer.

**Position Announcement:
Postdoctoral Researcher in Tropical Forest Habitat Modeling
Carnegie Airborne Observatory**

The Carnegie Institution for Science is a private organization conducting research for the benefit of humanity. Carnegie's Department of Global Ecology (<http://dge.ciw.edu>) undertakes large-scale, cutting-edge scientific studies on the interactions between the Earth's land, atmosphere and oceans, with the goal of understanding the ways these interactions shape the behavior of the Earth system, including its responses to climate, land-use and biodiversity change.

Carnegie's CAO program (<http://cao.ciw.edu>) combines 3D spectroscopic and laser imaging with unique scientific approaches to study, explore, and conserve ecosystems at large geographic scales. The CAO has a rich and growing heritage in exploring uncharted territory on our planet using airborne LiDAR, hyperspectral sensors, and other techniques, often leading to surprising discoveries of broad interest to science and society.

Carnegie seeks a **Postdoctoral Researcher in Tropical Forest Habitat Modeling** to join the **Carnegie Airborne Observatory (CAO)** team of the Department of Global Ecology.

Responsibilities

- Leadership in research on airborne hyperspectral and LiDAR imaging of tropical forest canopies
- Study of tropical forest habitats in the context of light and nutrient availability, plant demography, and/or carbon dynamics
- Development and use of habitat models, and their integration with CAO data
- Application of methods to CAO studies regions in Central and South America
- Leading as well as supporting others in scientific applications of CAO data in a variety of projects
- Leading and participating in the development of scientific reports, journal papers, and presentations

Qualifications

- PhD degree in tropical forest ecology and advanced remote sensing
- Proficiency in remote sensing data analysis
- Ability to program for geospatial applications (e.g. R, IDL, C, Python)
- Strong communication skills in English

The position will be based at Carnegie's Department of Global Ecology on the campus of Stanford University. Salary will be determined based on experience, and the position includes a highly competitive benefits package.

Please apply at <https://jobs.carnegiescience.edu/>
no later than September 1, 2013.

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**Position Announcement:
Postdoctoral Researcher in Geospatial Animal-Habitat Interactions
Carnegie Airborne Observatory**

The Carnegie Institution for Science is a private organization conducting research for the benefit of humanity. Carnegie's Department of Global Ecology (<http://dge.ciw.edu>) undertakes large-scale, cutting-edge scientific studies on the interactions between the Earth's land, atmosphere and oceans, with the goal of understanding the ways these interactions shape the behavior of the Earth system, including its responses to climate, land-use and biodiversity change.

Carnegie's CAO program (<http://cao.ciw.edu>) combines 3D spectroscopic and laser imaging with unique scientific approaches to study, explore, and conserve ecosystems at large geographic scales. The CAO has a rich and growing heritage in exploring uncharted territory on our planet using airborne LiDAR, hyperspectral sensors, and other techniques, often leading to surprising discoveries of broad interest to science and society.

Carnegie seeks a **Postdoctoral Researcher in Geospatial Animal-Habitat Interactions** to join the **Carnegie Airborne Observatory (CAO)** team of the Department of Global Ecology.

This position focuses research on the interactions between animal movement and habitats in the Kruger National Park, South Africa. Examples of recent work include:

[The Economist – Lion hunting habitats](#)
[National Geographic - Lions](#)
[Discovery - Elephants](#)

Responsibilities

- Leadership in research with high-resolution remote sensing and animal tracking techniques to improve our understanding of animal-habitat interactions
- Methods development for studies of animal-habitat interactions using data from the CAO
- Leading and participating in the development of scientific reports, journal papers, and presentations

Qualifications

- PhD degree in animal ecology with a strong background in geospatial animal movement and habitat analysis
- Experience in geospatial analysis, GIS or remote sensing
- Strong communication skills in English

The position will be based at Carnegie's Department of Global Ecology on the campus of Stanford University. Salary will be determined based on experience, and the position includes a highly competitive benefits package.

Please apply at <https://jobs.carnegiescience.edu/>
no later than October 1, 2013.

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**Position Announcement:
Staff Technical Scientist in LiDAR Remote Sensing
Carnegie Airborne Observatory**

The Carnegie Institution for Science is a private organization conducting research for the benefit of humanity. Carnegie's Department of Global Ecology (<http://dge.ciw.edu>) undertakes large-scale, cutting-edge scientific studies on the interactions between the Earth's land, atmosphere and oceans, with the goal of understanding the ways these interactions shape the behavior of the Earth system, including its responses to climate, land-use and biodiversity change.

Carnegie's CAO program (<http://cao.ciw.edu>) combines 3D spectroscopic and laser imaging with unique scientific approaches to study, explore, and conserve ecosystems at large geographic scales. The CAO has a rich and growing heritage in exploring uncharted territory on our planet using airborne LiDAR, hyperspectral sensors, and other techniques, often leading to surprising discoveries of broad interest to science and society.

Carnegie seeks a **Staff Technical Scientist in LiDAR Remote Sensing** to join the **Carnegie Airborne Observatory (CAO)** team of the Department of Global Ecology as a full time staff member.

Responsibilities

- Processing airborne LiDAR data collected by the CAO
- Co-leading CAO airborne campaigns one to two times per year, usually outside of the United States
- Leading methods development for LiDAR data processing
- Leading and supporting scientific applications of LiDAR data in a variety of projects
- Participating in the development of scientific reports, journal papers, and presentations

Qualifications

- Master's or PhD degree in remote sensing, with an advanced understanding of LiDAR instrumentation, data processing and scientific applications
- Strong proficiency in LiDAR data processing software (i.e., POSPAC, LMS, LASTools)
- Strong proficiency in geospatial data processing software (i.e., GDAL, ENVI, ArcGIS)
- Experience in programming for geospatial applications (i.e., R, IDL, C, Python)
- Strong communication and collaboration skills

The position will be based at Carnegie's Department of Global Ecology on the campus of Stanford University. Salary will be determined based on experience, and the position includes a highly competitive benefits package.

Please apply at <https://jobs.carnegiescience.edu/>
no later than August 30, 2013.

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**Position Announcement:
Staff Technical Scientist in Optical Remote Sensing and GIS
Carnegie Airborne Observatory**

The Carnegie Institution for Science is a private organization conducting research for the benefit of humanity. Carnegie's Department of Global Ecology (<http://dge.ciw.edu>) undertakes large-scale, cutting-edge scientific studies on the interactions between the Earth's land, atmosphere and oceans, with the goal of understanding the ways these interactions shape the behavior of the Earth system, including its responses to climate, land-use and biodiversity change.

Carnegie's CAO program (<http://cao.ciw.edu>) combines 3D spectroscopic and laser imaging with unique scientific approaches to study, explore, and conserve ecosystems at large geographic scales. The CAO has a rich and growing heritage in exploring uncharted territory on our planet using airborne LiDAR, hyperspectral sensors, and other techniques, often leading to surprising discoveries of broad interest to science and society.

Carnegie's CLASlite program (<http://claslite.ciw.edu>) maps tropical deforestation, forest degradation and fire scars in a wide range of projects worldwide. CLASlite is one of the most popular, and powerful, tropical deforestation mapping programs in the world.

Carnegie seeks a **Staff Technical Scientist in Optical Remote Sensing and GIS** to join the Department of Global Ecology as a full time staff member.

Responsibilities

- Supporting an NSF-funded project to map tropical forest cover, condition and fire scars in Brazil and Peru
- Analysis of CAO hyperspectral and LiDAR imagery for assessment of tropical forests
- Analysis of large volumes of Landsat satellite imagery
- Management of geospatial and field data for a research group using ArcGIS
- Providing technical support to a group of graduate students throughout the project

Qualifications

- MS or PhD degree in remote sensing with a strong emphasis on multispectral and hyperspectral data
- Strong proficiency in imaging processing and GIS software (ENVI, ERDAS, ArcGIS, etc)
- Strong communication and collaboration skills
- Fluency in English plus Spanish or Portuguese preferable

The position will be based at Carnegie's Department of Global Ecology on the campus of Stanford University. Salary will be determined based on experience, and the position includes a highly competitive benefits package.

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