Postdoctoral Scientist in Environmental Remote Sensing

Posting Date: Oct 1, 2014
Open Until: until filled
Location: CSTARS, University of California, Davis CA.
Start Date: available immediately (start date negotiable)
Closing Date: open until filled
Payroll Title: Postdoctoral Scholar
Appointment Term: Initially 1 year, annually renewable for up to 5 total years upon performance review and availability of funds
Salary: $41,000-49,000 a year, depending on qualifications and experience
Benefits: Excellent UC Davis postdoctoral benefit package (details can be found at: http://www.garnett-powers.com/postdoc/)
U.S. Citizenship: Not required; Foreign candidates may be sponsored for US non-immigrant visas.

Dr. Susan Ustin’s Center for Spatial Technologies and Remote Sensing (CSTARS) at UC Davis is known for nearly 30 years to be one of strongest environmental remote sensing groups in the United States. CSTARS faculty and staff scientists come from all over the world and various disciplines including GIS, Computer Science, Applied Math, Geography, Botany, Ecology, Soil, Atmospheric and Environmental Sciences. For more information about CSTARS please visit us at: http://cstars.metro.ucdavis.edu/.

Currently, CSTARS is looking for a highly motivated Postdoctoral Scientist in Environmental Remote Sensing with experiences in

− wildfire modeling, including the use of remote sensing and other data sources to analyze relationship between various factors and wildfire activity in a statistically sound way;
− developing methods for estimating vegetation biophysical and structural properties with remote sensing; and
− advanced technical skills to fluently manipulate large and diverse datasets.

The candidate will work closely with the Principal Investigators, Dr. Susan Ustin and Dr. Alex Koltunov, and will be primarily involved in:

• a multi-source remote sensing and environmental data analysis to inform post-fire restoration and effective prevention of future catastrophic wildfires;

• other remote sensing data analysis projects in the lab, including classification, change and anomaly detection, and modeling, using hyperspectral and multitemporal datasets, as needed.

This is your opportunity for rapid professional growth, recognition, and collaboration with the world leading experts in Environmental Remote Sensing, Forest Ecology, Forest Management, and Wildfire Remote Sensing community.

The ideal candidate will have the following Qualifications and Skills:
**Education/Technical Expertise:**

A. Ph. D. degree (or near completion) in Remote Sensing, GIS, Forestry, Geography, Ecology, Wildfire Science, Computer Sciences (e.g. Computer Vision), Physics, Engineering, Applied Math, or a similar field.

B. Demonstrated experience with fusing and combining multisource remote sensing at various spectral, spatial, and temporal resolutions and auxiliary data sources, to address ecological or environmental questions, for example AVIRIS, World View 2, LiDAR, and Landsat.

C. Mapping forest: biomass, biochemistry, health, and structure with active and passive remote sensing.

D. Experience in studying wildfire behavior in relation to ecological, geographic, environmental, or anthropogenic factors.

E. Technical Skills for efficiently analyzing Large Datasets
   a. Computer Programming: in Matlab, IDL, R, or similar language
   b. Fluency with multiple software: ArcGIS, ENVI, statistical data analysis packages

F. Image Time Series analysis and modeling, for example:
   a. Landsat image time series analysis for forest monitoring and disturbance detection


H. Formal training and solid theoretical understanding of the following topics:
   - Wildfire Science
   - Multivariate Statistical Analysis.
   - Thermal Physics

**Inter-Personal Characteristics:**

I. Great dedication to the project success; willingness and ability to work flexible hours and occasional overtime to meet project needs; perform well under intense deadline/deliverable schedule; ability to frequently switch between different tasks.

J. Excellent communication skills (both written and spoken) in English language.

K. Ability to work independently and in a multi-disciplinary team.

**Additional Desired Qualifications:**

I. GIS training/experience and working knowledge of ArcGIS and ENVI software

II. Practical experience with data from these platforms and sensors: GOES Imager/or a similar geostationary sensor, AVIRIS, Landsat, World View, MODIS, VIIRS.

III. Previous post-doctoral experience.

IV. Strong peer-reviewed publication record.

**Applications should be sent by email and include the following *five* items:**

1) Cover Letter which must specifically address the applicant’s qualifications with respect to the above items: A)-H) and I)-IV). Although we would prefer the applicant to have all the listed skills, it is not mandatory.

2) Curriculum Vitae (up to 3 pages) including contact information for at least two references.
3) List of Publications.
5) Up to three representative publications.

Please email your applications materials to:

Dr. Alexander Koltunov, akoltunov1234atucdavis.edu [please replace “1234at” with @, if you are not a robot!]

with the subject line: “Postdoc in Environmental Remote Sensing: your family name”

Please note that due to high volume of applications we may not be able to contact every applicant. Selected candidates may be contacted to arrange a telephone/Skype or an in-person interview.

The University of California is an Equal Opportunity Affirmative Action Employer.

UC Davis is a smoke and tobacco free campus effective January 1, 2014. Smoking, the use of smokeless tobacco products, and the use of unregulated nicotine products (e-cigarettes) will be strictly prohibited on any UC Davis owned or leased property, indoors and outdoors, including parking lots and residential space.