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Opportunity Title: NGA: Agricultural Scientist
Opportunity Reference Code: NGA-17-9

Organization U.S. Department of Defense (DOD)

Reference Code NGA-17-9

How to Apply To review the full project description and apply, please click this link.

For more information on the National Geospatial-Intelligence Agency's Visiting Scientist Program, please visit the NGA ORISE website.

For questions about this opportunity, please contact the ORAU Maryland Office:

Recruiter@orau.org

410-306-9200

Description PROJECT DETAILS

This announcement supports NGA Research's Environment and Culture Pod. Our research questions revolve around understanding how the complex interaction between humans and their environment can be modeled to address national security and humanitarian problems of relevance to the IC, DoD, and other US Government agencies. NGA is interested in determining new insights from digital geospatial data for better understanding variation and characterization of world agriculture. NGA is interested in analyzing the synergy among multiple remotely sensed or inferred datasets (e.g., satellite imagery), geophysical data (e.g., temperature, soil moisture, underlying lithology or soil), and historical research. Specifically, we want to determine regional heterogeneity of crops and cultivars, and identify sampling strategies, and determine optimal spectral/spatial/textural signatures that maximize regional reliability of classifiers.

This appointment may include, but is not limited to, the following tasks:

- Develop and evaluate spectral/spatial/textural or geophysical heterogeneity of crops, growing conditions, and agricultural practices in and among various regions and ecosystems.
- Develop, propose, and execute original research.
- Collaborate closely with government, university, and contractor staff

Qualifications

- Student applicants must be completing a Ph.D. or post-doctoral appointment with backgrounds in remote sensing, precision agriculture, geography, data science, or a related field.
- Current college or university faculty members on sabbatical are also eligible.
- Other applicants will be considered on a case-by-case basis.
- Applicants must demonstrate experience in one or more of the following: precision agriculture; remote sensing of agriculture, agricultural sciences, principals of field survey and site-selection
- Some knowledge of soil science and understanding, specifically as it pertains to crop performance and yield is desirable.

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- Applicants must demonstrate technical aptitude in one or more of the following: remote sensing analysis applications (e.g., ENVI, MATlab, eCognition); statistics (e.g., R, SPSS), some coding skills (e.g., Python, Java, R); methods for accuracy assessment.
- Applicants should have experience in working within a research environment and show an ability to conceptualize a broad research agenda, to plan and execute specific research projects, and to meet task deadlines and goals. Applicants should have excellent verbal and written communication skills.
- **U.S. citizenship is required for the applicant. Please see further eligibility under Security Requirements.**
- A background check will be conducted for a Sensitive Compartmented Information (SCI) security clearance. Completion of a Questionnaire for National Security Positions is required. Details can be found under the Security Requirements section. Visiting scientists are also subject to Counterintelligence Polygraph examinations in order to maintain access to Top Secret information.
- Prior to gaining clearance, the selectee will be responsible for obtaining permission to conduct unclassified research from their home university or lab. Failure to obtain TS/SCI within a year of start will result in a reevaluation of the appointee.
- NGA is a drug-free workplace. Initial and random drug tests will be conducted.

Eligibility Requirements

- **Citizenship:** U.S. Citizen Only
- **Degree:** Doctoral Degree.
- **Discipline(s):**
  - **Computer, Information, and Data Sciences** (16 👁)
  - **Earth and Geosciences** (21 👁)
  - **Environmental and Marine Sciences** (2 👁)
  - **Mathematics and Statistics** (10 👁)
  - **Physics** (16 👁)