

Opportunity Title: Oceanographer Intern

Opportunity Reference Code: ERDC-CHL-2019-0004

Organization U.S. Department of Defense (DOD)

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How to Apply Components of the online application are as follows:

- Profile Information
- Educational and Employment History
- · Essay Questions (goals, experiences, and skills relevant to the opportunity)
- Resume (PDF)
- Transcripts/Academic Records Click here for detailed information about acceptable transcripts
- References

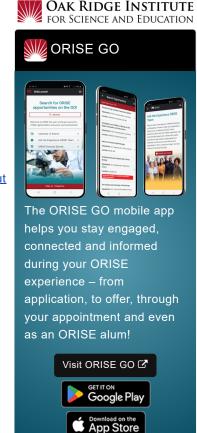
Submitted documents must have all social security numbers, student identification numbers, and/or dates of birth removed (blanked out, blackened out, made illegible, etc.) prior to uploading into the application system.

If you have questions, send an email to <u>usace@orise.orau.gov</u>. Please list the reference code of this opportunity in the subject line of the email.

All documents must be in English or include an official English translation.

**Description** The U.S. Army Engineer Research and Development Center's Coastal & Hydraulics Laboratory (CHL) performs research on ocean, estuarine, riverine, and watershed systems in support of the U.S. Army Corps of Engineers (USACE) and the Department of Defense (DOD) Task Force in support of the Ocean Commission. A multi-disciplinary team of scientists, engineers, and support personnel work in CHL's internationally known, unique facilities. This team has developed state-ofthe-art experimental and computational models for solving water resource problems worldwide. CHL research and development addresses water resource and navigation challenges in a variety of hydrodynamic systems including aquifers, watersheds, rivers, reservoirs, lakes, estuaries, harbors, coastal inlets, and wetlands. Physical facilities of approximately 1.7 million square feet and highperformance computing facilities at the DOD Supercomputing Research Center (http://www.erdc.hpc.mil) are the basic infrastructure for producing cutting-edge products for successful coastal, inland water resources, and navigation management. CHL work, although primarily in support of the DOD and the Corp's districts, also interfaces with other federal, state and local agencies, academia, conservation groups, and the general public, as appropriate. The Research Participation Program for USACE-ERDC-CHL provides opportunities to participate in new and on-going applied research and development projects. Research projects range from design guidance to three-dimensional computational models. Focus is placed on inland and coastal navigation, military logistics over the shore, dredging, flood control, storm and erosion protection, waterway restoration, fish passage, hydro-environmental modeling, water/land management, and other water and sediment-related issues facing the nation. For more information about USACE-ERDC-CHL, please visit https://www.erdc.usace.army.mil/Locations/CHL/.

> This learning experience will provide a participant an opportunity to support the Engineers Research and Development Center's Coastal and Hydraulics Laboratory Field Research Facility (FRF). The participant will collaborate with the FRF team in collecting and preserving coastal and oceanographic data collection and analysis. Under the guidance of a mentor, the participant will learn how to maintain and operate oceanographic and remote sensing instrumentation, perform



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data collection and analysis, and QA/QC existing measurements. Measurements will include waves, currents, remote sensing, and water column optical properties in the nearshore. The participant's experience will also focus on the development of data collection and analysis procedures for a suite of new instruments, and will be taught to expand their use of Matlab, Python, Linux, and/or Perl for data collection and analysis activities.

Please note this research opportunity may require off-site travel.

### **Appointment Length**

This ORISE appointment is for a 12 month period. Appointments may be extended depending on funding availability, project assignment, program rules, and availability of the participant.

## **Participant Benefits**

Participants will receive a stipend to be determined by ERDC-CHL. Stipends are typically based on the participant's academic standing, discipline, experience, and research facility location. Other benefits may include the following:

- Health Insurance Supplement. Participants are eligible to purchase health insurance through ORISE
- Relocation Allowance
- Training and Travel Allowance

# **Nature of Appointment**

The participant will not enter into an employee/employer relationship with ORISE, ORAU, DOD, or any other office or agency. Instead, the participant will be affiliated with ORISE for the administration of the appointment through the ORISE appointment letter and Terms of Appointment.

Qualifications Research activities at the FRF will expose the candidate to all aspects of the research process, from field activities and experiment design to the collection and analysis of field data. Potential candidates should have an understanding of coastal oceanographic processes, measurement techniques, data analysis, and computer programming.

Minimum requirements

- Masters Degree in Oceanography, coastal engineering, or closely related field or Bachelors Degree in science or engineering with at least 3 years experience working with oceanographic instrumentation and data.
- experience with oceanographic data and demonstrated data analysis skills
- programming experience ( MATLAB and/or python) and capability to learn new programming languages

Additional consideration will be given to the candidates with experience in the following:

- Wave and current measurements, ocean optics, lidar
- Experience with data QA/QC and distribution (e.g. Qartod, Thredds)
- Electronics experience
- Experiment design, participation in field experiments, time at sea

Eligibility • Citizenship: U.S. Citizen Only

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- Requirements Degree: Bachelor's Degree, Master's Degree, or Doctoral Degree received within the last 60 months or currently pursuing.
  - Discipline(s):
    - Chemistry and Materials Sciences (12. )
    - Computer, Information, and Data Sciences (16.4)
    - Earth and Geosciences (21 ⑤)
    - ∘ Engineering (27 ●)
    - Environmental and Marine Sciences (<u>14</u> ♥)
    - Life Health and Medical Sciences (45.●)
    - Physics (<u>16</u> ●)
  - Age: Must be 18 years of age

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