Opportunity Title: Biomechanics Team Research Assistant
Opportunity Reference Code: USARIEM-30403507787

Organization U.S. Department of Defense (DOD)

Reference Code USARIEM-30403507787

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
- 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 ARMY-MRMC@ORISE.ORAU.GOV . 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 Institute of Environmental Medicine (USARIEM), located in Natick, MA is offering a research opportunity for one participant to learn and train under USARIEM scientists. The mission of USARIEM is to optimize Warfighter health and performance through medical research (www.usariem.army.mil). As military readiness is a top priority, the ideal candidate will assist in conducting research on the biomechanics of overuse injury risk with a focus on the lower extremities. This participant will take part in research activities ranging from study conception to data collection and analysis to manuscript publication. Appointments will be awarded for 1 year, potentially renewable up to 4 years, and will be offered through the Oak Ridge Institute for Science and Education (ORISE) (https://orise.orau.gov).

Current research protocols include exploring associations of human movement (walking, load carriage and running), performance and musculoskeletal injury risk utilizing standard motion capture techniques and inertial measurement units (IMUs). Under the guidance of a mentor, the participant will support with additional activities necessary to enable data collection including IRB paperwork, subject scheduling and coordinating laboratory hours for data collections. The individual will process and analyze motion capture and IMU data. In additional will also learn to write-up and present results in abstracts and conferences.

USARIEM BIOMECHANICS: The Center for Military Biomechanics Research is a 120' x 50' state of the art biomechanics laboratory located at the Natick Soldier Systems Center in Natick, MA shared between USARIEM and the Natick Soldier Research Development and Engineering Center (NSRDEC). The facility equipment includes multiple 3D motion capture systems (Qualisys), in-ground force platforms (AMTI), force-sensing treadmills (AMTI), surface EMG (Motion Labs), IMUs (IMeasureU), digital video capture and processing capabilities (Dartfish), and energy expenditure (ParvoMedics). Additionally USARIEM also owns equipment to measure bone health, including dual energy x-ray absorptiometry (DEXA) and high resolution peripheral quantitative computed tomography (HR-pQCT). The USARIEM Biomechanics team collaborates with experts in bone health, physiology, occupational and physical therapy, statistics and biomedical modeling.

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CONTACT INFORMATION: For more information about this open opportunity please contact:

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Qualifications

QUALIFICATIONS: Applicants must hold an M.S. or equivalent degree in biomechanics or a related STEM field for less than five years and must be U.S. citizens. Some experience with collecting and processing three-dimensional motion and force data on humans is a plus (musculoskeletal modeling experience preferred), as is experience with statistical software packages and computer programming experience (MATLAB preferred). Excellent written and oral communication skills, including conflict resolution skills, as well as the ability to work independently and as part of an interdisciplinary team are required.

Eligibility Requirements

- **Citizenship:** U.S. Citizen Only
- **Degree:** Master's Degree or Doctoral Degree received within the last 60 months or currently pursuing.
- **Discipline(s):**
  - **Engineering** (5)
  - **Environmental and Marine Sciences** (1)
  - **Life Health and Medical Sciences** (45)
  - **Physics** (2)