

**Opportunity Title:** Biophysics and Biomedical Modeling Post-Graduate Fellow  
at USARIEM

**Opportunity Reference Code:** USAMRMC-RIEM-2021-0054

**Organization** U.S. Department of Defense (DOD)

**Reference Code** USAMRMC-RIEM-2021-0054

**How to Apply** Click on *Apply* at the bottom of the opportunity to start your application.

**Description** The US Army Research Institute of Environmental Medicine (USARIEM) is offering a Post-Master's or Postdoctoral level Fellowship.

#### What will I be doing?

As an ORISE participant, you will join a community of scientists and researchers in a new USAMRAA-sponsored project, contributing to a number of enhancements to the product of the SBIR DHA191-001, "Augmented Reality (AR) Surgical Visualization Tool for Combat Casualty Care," authored by Gary Zientara, PhD. Integrated Visual Augmentation System (IVAS) goggles are the product of the SBIR software, which provide an Augmented Reality feature of overlaying morphed anatomy onto the injured Warfighter viewed by a Medic at the point-of-injury.

Throughout your appointment, you will spend 70% of your time writing and testing computer code, 20% testing, and 10% communicating with the project collaborators.

#### Why should I apply?

Under the guidance of a mentor, you will gain hands-on experience to complement your education and support your academic and professional goals. Along the way, you will engage in activities and research in several areas. These include, but are not limited to:

- Image processing in order to ascertain visible trauma sites and the extent and possible causes
- Classifying the visible trauma following Army Medic guidelines

Through this fellowship, you will gain experience on a collective research project, in which a group from the academic world, and engineering contracting sectors research together to achieve results. Dr. Zientara at USARIEM (the project PI), Professor Alex Zhou at the New Jersey Institute of Technology, and engineers at Augmnt Inc (who are completing SBIR DHA191-001) will provide mentorship throughout the duration of your appointment.

#### Where will I be located?

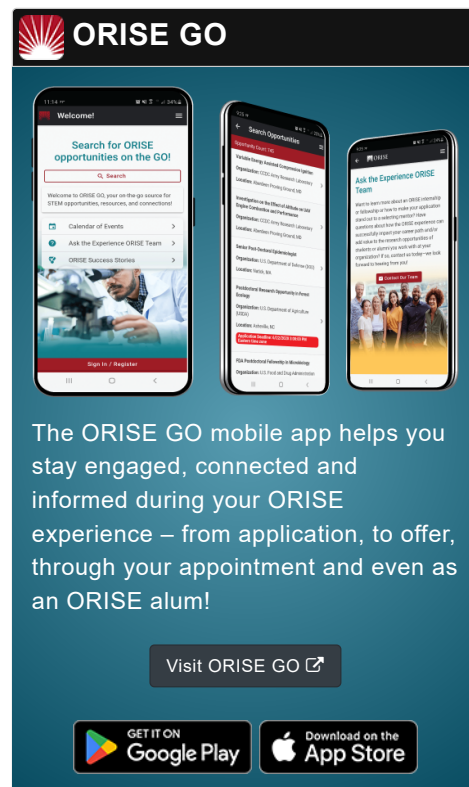
Natick, Massachusetts

#### What is the anticipated start date?

The USARIEM is ready to offer an appointment in **December 2021**. Exact start dates will be determined at the time of selection and in coordination with the selected candidate. Applications are reviewed on an ongoing basis and the internship will be filled as a qualified candidate is identified

#### What is the appointment length?

This appointment is a twelve month research appointment, with the possibility to be

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renewed for additional research periods. Appointments may be extended depending on funding availability, project assignment, program rules, and availability of the participant.

**What are the benefits?**

You will receive a stipend to be determined by USARIEM. Stipends are typically based on a 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

**About USARIEM**

The [U.S. Army Research Institute of Environmental Medicine \(USARIEM\)](#), located in Natick, Massachusetts, is an internationally recognized center of excellence for Warfighter health and performance science and its applications. USARIEM, a subordinate laboratory of the U.S. Army Medical Research and Materiel Command (USAMRMC), is an internationally recognized center of excellence for Warfighter performance science and its useful applications. The Institute functions as a world-class laboratory for environmental medicine, physiology, performance and nutrition research. It features integrated cellular, tissue, & human research programs.

**About ORISE**

This program, administered by Oak Ridge Associated Universities (ORAU) through its contract with the U.S. Department of Energy (DOE) to manage the Oak Ridge Institute for Science and Education (ORISE), was established through an interagency agreement between DOE and DoD. Participants do not enter into an employee/employer relationship with ORISE, ORAU, DoD or any other office or agency. Instead, you will be affiliated with ORISE for the administration of the appointment through the ORISE appointment letter and Terms of Appointment. Proof of health insurance is required for participation in this program. Health insurance can be obtained through ORISE. For more information, visit the [ORISE Research Participation Program at the U.S. Department of Defense](#).

**Qualifications**

The qualified candidate will have completed a Doctoral degree in computer science or Master's degree in software engineering.

Highly competitive candidates will have:

- Significant programming experience in C, C++, and Linux OS. Python, and UNITY
- Experience in image processing including images from video streams as well as human images

**Application Requirements**

A complete application consists of:

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- Zintellect Profile
- Educational and Employment History
- Essay Questions (goals, experiences, and skills relevant to the opportunity)
- Resume (PDF)
- Transcripts/Academic Records - For this opportunity, an unofficial transcript or copy of the student academic records printed by the applicant or by academic advisors from internal institution systems may be submitted. [Click here for detailed information about acceptable transcripts.](#)
- One Recommendation

If you have questions, send an email to [ARMY-MRMC@orise.orau.gov](mailto:ARMY-MRMC@orise.orau.gov). Please list the reference code of this opportunity USAMRMC-RIEM-2021-0053 in the subject line of the email. Please understand that ORISE does not review applications or select applicants; selections are made by the sponsoring agency identified on this opportunity. All application materials should be submitted via the "Apply" button at the bottom of this opportunity listing. Please do not send application materials to the email address above.

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#### Eligibility Requirements

- **Citizenship:** U.S. Citizen Only
- **Degree:** Master's Degree or Doctoral Degree received within the last 60 month(s).
- **Discipline(s):**
  - **Chemistry and Materials Sciences** (12 )
  - **Communications and Graphics Design** (2 )
  - **Computer, Information, and Data Sciences** (17 )
  - **Earth and Geosciences** (21 )
  - **Engineering** (27 )
  - **Environmental and Marine Sciences** (14 )
  - **Life Health and Medical Sciences** (46 )
  - **Mathematics and Statistics** (10 )
  - **Physics** (16 )
  - **Science & Engineering-related** (1 )
  - **Social and Behavioral Sciences** (28 )
- **Age:** Must be 18 years of age
- **Veteran Status:** Veterans Preference, degree received within the last 120 month(s).