

Opportunity Title: Research Associate Supporting Cognitive Neuroscience - BMI/Neuromodulation Research

Opportunity Reference Code: AFRL-711HPW-2021-0003

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 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. <u>Click here for detailed information about acceptable transcripts</u>.
- One Required Recommendation

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>AIRFORCE@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 711th Human Performance Wing (711 HPW), headquartered at Wright-Patterson Air Force Base in Ohio, is the first human-centric warfare wing to consolidate human performance research, education, and consultation under a single organization. Established under the Air Force Research Laboratory (AFRL), the 711 HPW is comprised of the Airman Systems Directorate (RH) and the United States Air Force School of Aerospace Medicine (USAFSAM). For more information about the Air Force Research Laboratory, 711 Human Performance Wing, Airman Systems Directorate, Airman Biosciences Division, please visit https://afresearchlab.com/.

The AFRL Neuromodulation team is looking for a participant to aid in the preparation and completion of research studies, and assist with reports as needed—not limited to but including:

1) data collection from human and potentially animal subjects (*will require CITI training), 2) assist research subjects with record keeping, laboratory maintenance and experiment preparation, 3) become familiar with cognitive testing used in this program - enough to assist in administration, 4) assist in preparing subjects for physical testing, including application of sensors, 5) consultation and discussion with investigators, 6) help with preparation of reports and presentations.

Additionally, the participant will receive mentorship on aspects related to neuromodulation/brain stimulation research and brain machine interfaces. A

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> large portion of this will include the development of software for real-time data processing, graphic user interface (GUI) development, and analysis and setup related to neuromodulation and Electroencephalography (EEG).

Appointment Length

This appointment will be located at Wright-Patterson Air Force Base, Ohio, and participation will be part-time (50%, 20 hours/week). 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 AFRL. 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 Candidates should currently be pursuing a bachelor's degree with a major or equivalent in engineering, computer science, mathematics, or psychology.

Preferred Qualifications

- Experience with MATLAB, data, and signals processing.
- · Willingness and ability to assist with Magnetic Resonance Imaging research at Dayton Children's Hospital in the evenings on occasion.

The eligible candidate must meet the requirement to gain access to Wright-Patterson AFB, OH. A security clearance is NOT required.

- Eligibility • Degree: Currently pursuing a Bachelor's Degree.
- Citizenship: U.S. Citizen Only

Requirements

- Discipline(s):
 - Chemistry and Materials Sciences (12.)
 - Communications and Graphics Design $(2 \odot)$
 - Computer, Information, and Data Sciences (<u>17</u>)
 - Engineering (<u>27</u> 𝕌)
 - Life Health and Medical Sciences (46)
 - Mathematics and Statistics (10 (10)
 - Science & Engineering-related (<u>1</u>⁽¹⁾)



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Social and Behavioral Sciences (<u>28</u> ●)

• Age: Must be 16 years of age