

Opportunity Title: Applied Cognitive Neuroscience Postdoctoral Research Fellowship
Opportunity Reference Code: AFRL-711HPW-2024-0012

Organization U.S. Department of Defense (DOD)

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

Description The Air Force Research Laboratory 711 Human Performance Wing (HPW) is offering a fellowship at Wright Patterson Air Force Base.

What will I be doing?

As an Oak Ridge Institute for Science and Education (ORISE) participant, you will join a community of scientists and researchers in an effort to support research activities in Applied Cognitive Neuroscience Core research. More specifically, the participant will help drive the development and implementation of studies investigating neural, ocular, and physiological signals associated with various aspects of human judgement with mathematical or computational models of cognitive performance to enable the assessment, monitoring, and augmentation of cognitive performance. The participant will integrate with a multi-disciplinary team of scientists and engineers working together to execute research activities and contribute to experiment design and preparation, participate in data collection efforts, assist with research subjects, contribute to record keeping, and perform general laboratory maintenance, as needed.

Why should I apply?

Under the guidance of a mentor, you will gain hands-on experience to 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:

- Help with the design, programming (e.g., Python, MATLAB/PsychToolbox), and execution of behavioral, eye-tracking, EEG or fNIRS experiments. Individuals with fMRI experience are welcome to apply as well.
- Support analysis of behavioral, eye-tracking, EEG, fNIRS, and/or fMRI experiments using standard commercial tools (e.g., Python, R, MATLAB)
- Assist with the production of quality technical (e.g., analyses, models, etc.) and written materials (e.g., reports, proposals, papers) related to behavioral and neuroscience disciplines, particularly cognitive science, cognitive neuroscience, or human performance using standard commercial tools (e.g., Python, R, MATLAB)
- Assist with the preparation and collection of data from research participants, including the application and calibration of neural and physiological sensors
- Aid in the development and maintenance of formal design documentation, study materials, research subjects record keeping, laboratory maintenance, experiment preparation, and human subjects research regulatory documentation
- Help with literature reviews and background research to support projects and proposal writing efforts
- Attend meetings with lab colleagues and research participants

Where will I be located?

Dayton, Ohio

What is the anticipated start date?

Exact start dates will be determined at the time of selection and in coordination with the selected



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candidate. Applications are reviewed on an ongoing basis and fellowships will be filled as qualified candidates are identified.

What is the appointment length?

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

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/>.

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 a doctoral degree in cognitive science, psychology, neuroscience, biomedical engineering, computer science, or another quantitative field (e.g., physics, engineering) relevant to the broad area of human cognition and neuroscience or currently pursuing with an expected degree completion date of December 31, 2024. Applicants who have already completed their doctoral degree must have received the degree within six months of the appointment start date.

Highly competitive applicants will have education and/or experience in one or more of the following:

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- Experience with cognitive computational modeling of human cognitive performance data or the joint modeling of neural (e.g., EEG, fNIRS, and/or fMRI) and cognitive performance data
- Experience designing, programming (e.g., MATLAB/PsychToolbox), and executing human subjects research involving EEG, fNIRS, and/or fMRI experiments
- Openness to acquiring new computational, statistical, or technological skills as needed

Application Requirements







A complete application consists of:

- Zintellect Profile
- Educational and Employment History
- Essay Questions (goals, experiences, and skills relevant to the opportunity)
- Resume (PDF)
- Transcripts/Academic Records - Please upload a copy of a transcript for your current or most recent degree program that meets the disciplinary qualifications of the opportunity. [Click here for detailed information about acceptable transcripts.](#)
- One Recommendation. We encourage you to contact your recommender(s) as soon as you start your application to ensure they are able to complete the recommendation form and to let them know to expect a message from Zintellect. Recommenders will be asked to rate your scientific capabilities, personal characteristics, and describe how they know you. You can always log back in to your Zintellect account and check the status of your application.

If you have questions, send an email to airforce@orise.orau.gov. Please list the reference code of this opportunity **AFRL-711HPW-2024-0012** 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:** Doctoral Degree received within the last 6 months or anticipated to be received by 12/31/2024 12:00:00 AM.
- **Discipline(s):**
 - **Computer, Information, and Data Sciences** ([3](#) )
 - **Engineering** ([27](#) )
 - **Life Health and Medical Sciences** ([51](#) )
 - **Mathematics and Statistics** ([2](#) )
 - **Physics** ([1](#) )
 - **Social and Behavioral Sciences** ([2](#) )