

Opportunity Title: Air Force Research Laboratory (AFRL) - Postdoctoral Researcher - Auditory Model Development
Opportunity Reference Code: AFRL-711HPW-2021-0008R

Organization U.S. Department of Defense (DOD)
Reference Code AFRL-711HPW-2021-0008R
How to Apply Click on *Apply* at the bottom of the opportunity to start your application.

Description The U.S. Air Force Research Laboratory (AFRL) is offering postdoctoral internships at the Wright-Patterson Air Force Base.

What will I be doing?

You will join a community of scientists and researchers in an effort to satisfactorily predict the detectability of complex sounds in natural sounds environments.

The human auditory system is remarkable in its ability to parse a sound scene into multiple sound objects. There are many computational models that are designed to simulate various aspects of the auditory system, but none yet that can satisfactorily predict the detectability of complex sounds in natural sound environments. The Sensory Systems Branch at the Air Force Research Laboratory aims to develop a model that can predict the detectability of a target sound in complex environments, including effects of information masking. This model will be useful for simulating auditory object formation and identification within complex sound scenes. In order to develop a dataset for the model, behavioral studies with human listeners will be designed and conducted with our on-site panel of test subjects, and/or ad hoc subjects for field data collections.

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:

- increasing your understanding of the auditory system by measuring and modeling its performance in complex environments
- conducting research in AFRL's unique acoustic facilities
- developing auditory models for sound detection
- interacting with a diverse team of experts

Where will I be located?

Dayton, Ohio

What is the anticipated start date?

AFRL is ready to make appointments immediately. Exact start dates will be determined at the time of selection and in



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coordination with the selected candidate. Applications are reviewed on an ongoing basis and internships will be filled as qualified candidates are identified.

What is the appointment length?

Appointments are initially for one year with the option to extend the appointment for up to four additional years, contingent upon project needs and funding availability.

What are the 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

About AFRL 711 HPW

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, 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 711th Human Performance Wing, please visit <https://www.wpafb.af.mil/afrl/711hpw/>.

The Airman Systems Directorate (RH) is the research arm of the 711th Human Performance Wing at the United States Air Force Research Laboratory. RH conducts a wide range of research and design projects for internal and operational customers. These projects connect to a wide range of disciplines and collaborators across government labs, academia, industry, and military operators in order to generate the most innovative and effective solutions.

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

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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 or will have completed by August 31, 2021. Degree must have been received within three years of the appointment start date.

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 - 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 AIRFORCE@orise.orau.gov. Please list the reference code [AFRL-711HPW-2021-0009R] of this opportunity in the subject line of the email.

Connect with ORISE...on the GO! Download the new ORISE GO mobile app in the [Apple App Store](#) or [Google Play Store](#) to help you stay engaged, connected, and informed during your ORISE experience and beyond!

Eligibility Requirements

- **Citizenship:** U.S. Citizen Only
- **Degree:** Doctoral Degree received within the last 36 months or anticipated to be received by 8/31/2021 11:59:00 PM.
- **Discipline(s):**
 - **Computer, Information, and Data Sciences** (1 )
 - **Engineering** (3 )
 - **Mathematics and Statistics** (2 )
 - **Physics** (3 )
 - **Social and Behavioral Sciences** (3 )
- **Age:** Must be 18 years of age