

## **Research Scientist, DB02 (Term)**

### **ERDC-Champaign/Construction Engineering Research Laboratory**

The Engineer Research and Development Center, Construction Engineering Research Laboratory (ERDC-CERL) is seeking candidates for a Research Scientist position for a project focused on improving automated software for bat echolocation call classification using the latest advances in machine learning. The project is a collaboration between ERDC-CERL, the Cornell Lab of Ornithology, the University of Illinois at Urbana-Champaign, and Department of Defense partners. A brief overview of the project can be found at <https://serdp-estcp.mil/projects/details/93cde5d0-a133-4913-924f-f5ac726f7e34>.

#### **Duties**

- Develop a deep neural network for bat call classification in collaboration with researchers from government and academia.
- Collect, curate, and analyze large sets of bioacoustic data, specifically, sequences of bat echolocation calls.
- Produce reports and presentations to communicate results to project partners and the scientific community at conferences and in peer-reviewed publications.
- Regularly coordinate with project managers and team members.
- Potential to participate in short-term (approximately week-long) field visits to collect recordings of bats from various locations in the United States.

#### **Qualifications**

- MS or PhD in biology, ecology, natural resources, computer science, data science, or a related scientific field.
- Demonstrated proficiency collecting, curating, and analyzing large datasets. Preference for experience working with large acoustic data sets of animal vocalizations.
- The ideal candidate will have a working knowledge of bioacoustics, specifically bat acoustic ecology, and experience identifying echolocation calls via spectrogram.
- Preference for candidates with experience in the use of acoustic software programs (e.g., Kaleidoscope Pro, SonoBat, Raven Pro).
- Experience in data/computer science, programming, or coding.
- Familiarity with machine learning methodology is a benefit.
- Organized, detail-oriented, and responsible.
- Excellent critical thinking and troubleshooting/problem-solving skills.
- Effective communication skills with project managers and team members.
- Effective technical writing and oral communication skills.

Term: Expected duration is 3 years

Grade: DB02 (anticipated \$50-70K)

Travel: up to 10%

Location: Champaign, IL. Remote work is negotiable.

If interested, please send a cover letter, CV, and contact information for three references to the email address below, including "Research Scientist" in the subject. Applications will be reviewed as they are received.

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