



CUAHSI POSTDOCTORAL RESEARCH ASSOCIATE IN FLOOD RESILIENCE

The Consortium of Universities for the Advance of Hydrologic Science, Inc. ([CUAHSI](#)) seeks candidates for one postdoctoral position in the general area of improving community resilience from flood disasters. The Postdoctoral Research Associate (RA) will conduct independent research, but is mentored by one or more faculty at the university of the RA's choosing.

The appointment will have an expected term of one year, extendable to two years, and starting as soon as possible. The position includes \$50,000, full benefits and a discretionary fund of \$10,000/year, much of which will support travel to the [National Water Center](#), in addition to any research funds that may be directed to the project by mentors.

BACKGROUND

CUAHSI is a university consortium primarily funded by the U.S. National Science Foundation to advance hydrologic science by strengthening multi-disciplinary collaboration, developing and operating research infrastructure, and promoting water education and training.

The Department of Homeland Security's (DHS) [Flood Apex Program](#) was developed with goals to reduce flood fatalities and property losses, and to enhance community resilience to floods. Housed within the DHS [Science and Technology Directorate](#), the Flood Apex Program aims to discover new tools, technologies, and solutions through strong partnerships. Discovery of new tools and technologies through partnerships aligns with the goals of the CUAHSI [Summer Institute](#) (SI), which is held under the auspices of the [National Water Center](#) (NWC) at the University of Alabama in Tuscaloosa with support from the National Weather Service. There is an opportunity to leverage the activities of the SI to advance the goals of the Flood Apex program.

CUAHSI is partnering with the DHS Science and Technology Directorate's Flood Apex program to support a Postdoctoral RA who will conduct outcome-based research on flood analytics that supports the Flood Apex program. The RA will be expected to integrate this research into CUAHSI's SI through active participation in the program. CUAHSI's involvement aligns with the organization's goal of advancing hydrologic science by strengthening multi-disciplinary collaboration, developing and operating research infrastructure, and promoting water education and training.

QUALIFICATIONS AND CRITERIA

Applicants must have completed a Ph.D. in a field of study relevant to flooding within the last two years. The ability to take initiative and work independently, and an interest in contributing to a dialogue across disciplinary boundaries is critical. Applicants should submit a research proposal based on the guidelines below, including identification and a letter of support from a proposed faculty mentor. Proposals will be judged on scientific merit, an achievable research plan, and the degree to which the research contributes the Flood Apex program and goals of the Summer Institute. Letters of support will be requested from proposed mentors, so applicants will benefit from contacting proposed mentors early in the process. Applicants must be U.S. citizens.



APPLICATION INSTRUCTIONS

To apply, please submit the following items by November 17, 2017 through the online [Proposal Space](#) submission portal:

- Cover letter describing your interest in the position;
- Current CV;
- Required project proposal (2,500 words maximum, excluding references). Proposals should briefly address the following points:
 - Title and brief abstract
 - Project background and importance: What is known and what is new about this question? Why does it matter?
 - How does this project fit with your own previous work and your proposed mentor's?
 - Project plan: What will be done? How does this research support the Flood Apex program and the Summer Institute? Include a data management plan, and timeline or work plan if appropriate. If additional resources will be needed to complete the work, do you have options for funding them?
 - Project outcomes: What products will come out of this project (e.g. articles, methods, datasets, policy briefs, educational materials)?
 - Identification of and a letter of support from a proposed faculty mentor
 - References
- Three letters of reference from advisors or colleagues who know the applicant's work well.

Proposals and letters of reference will be submitted through [Proposal Space](#). Questions should be addressed to Jerad Bales (jdbales@cuahsi.org).

Useful resources on DHS Flood APEX and the Summer Institute:

- Flood Apex [video](#)
- Flood Apex 1-page [Fact Sheet](#)
- Flood Apex [infographic](#)
- Samples of Current Flood Apex Research projects:
 - New Orleans Flood Resilience Experiment After [Action Report](#)
 - Automated National Structures Inventory Project Fact [Sheet](#)
 - Low Cost Flood Inundation [Sensors](#)
 - Smart Flood Alerts [Pilot](#)
 - [Historical Flood Extents](#) using LandSAT
- 2016 Summer Institute [Technical Report](#).



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