

HYDROLOGIC RESEARCH CENTER

A Nonprofit Research Corporation

Software Developer (San Diego, CA or Remote, U.S.)

The Hydrologic Research Center (HRC) is a non-profit, public-benefit research, technology transfer and training corporation with a mission focus on positive global impact through solving the world's water problems in various forms. At a time when vulnerable societies are increasingly impacted by the emerging effects of climate change, growing populations and water resource issues, HRC's research-to-operations activities (since 1993) provide mitigation strategies that save lives, protect health, and enable economic prosperity and long-term sustainability of local agriculture, water resources, healthy ecosystems, and natural resources.

Our initiatives include disaster preparedness and response, the management of water resources, and the development of vitally important early warning systems for weather-related hazards, especially floods, flash floods, droughts and landslides.

Since our founding in 1993, more than 28 years of HRC's research, education initiatives, climate change adaptation and mitigation solutions have influenced the water resource interests of multiple regions throughout the world and now presently support the activities of national meteorological, hydrological and disaster management agencies of more than 64 countries, serving 3 billion people, through its Global Flash Flood Guidance System initiative.

We are looking for creative and team-focused technical professionals to play an important role in the design, development and implementation of HRC's operational decision support software systems to tackle the world's water needs. Selected candidates will join a multidisciplinary team of engineers and scientists to contribute their skills toward development and deployment projects at municipal, state, national and international scales.

This is an opportunity for someone who is genuinely excited to contribute to technical implementations and innovations that will provide a positive impact for billions of people globally. You will be working with a small but close-knit team of like-minded colleagues on large-scale, high-profile projects where your input, ideas and efforts will help shape our contribution and response to the world's water and disaster mitigation needs.

Our team is the right fit for you if you're excited by:

- Dedicating your efforts to an impactful career for public benefit worldwide
- Being part of a small team of highly collaborative scientists and engineers where your voice and ideas count
- Formulating creative solutions to complex problems and exploring new paths for future initiatives
- Applying your interests in mathematics and/or physical sciences in your everyday work
- Participating in all phases of HRC software development, from design and development across a spectrum of applications to international deployments, end-user training and technical support
- Fostering ongoing relationships with colleagues in our partner and client agencies both domestic and abroad
- Work remotely with frequent online meetings and with the potential for international travel

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New members of our development team will:

- Join the development and support of existing and upcoming projects through collaboration and training with HRC team members
- Gradually participate in all phases of HRC software development, including enhancements of existing applications and implementation of new initiatives
- Collaborate with technical team members on the design, implementation, validation and documentation of software solutions across the range of frontend and backend components
- Shape the future momentum of HRC design and development through the infusion of new ideas, technologies and innovative thinking
- Assist with the management of numerous data resources, real-time acquisitions, system and processing operations hosted at HRC and our globally deployed software systems
- Participate in the training and development of course materials for the benefit of end users and recipients of our technology-transfer activities
- Provide occasional technical support to clients, partners and collaborators involved with our deployed systems
- Plan development strategies and schedules for timely completion of tasks
- Proactively document progress of design and development efforts through written notes and informal presentations
- Proceed with development responsibilities through guided effort and training as well as independent initiative and self-education

Qualifications that should equip your interest:

- A Bachelor's Degree or higher in Software Engineering, Computer Science or related technical field
- Proficiency with problem analysis and designing/implementing data structures and algorithms according to application
- Skills and interest among the pool of core technologies utilized or planned by HRC:
 - **Operating Systems:** Ubuntu and Red Hat (CentOS) Linux, Microsoft Windows
 - **Languages/Scripting:** C/C++, SQL, Bash, Python
 - **Relational Databases:** PostgreSQL, PL/pgSQL
 - **Geospatial Libraries/Applications:** PostGIS, GDAL/OGR, GRASS GIS, QGIS
 - **GeoSpatial Web Frameworks:** Mapserver, OpenLayers, Mapcache
 - **Web App Development:** HTML, PHP, Javascript, CSS
 - **Cloud platforms/hosting:** e.g., virtual machines, containers, etc
- Proficiency working through remote shells to navigate and develop within a Linux environment
- Strong transactional/technical writing skills for collaborative communication, project reporting, end-user software documentation and presentations

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Additional Information and Instructions:

HRC's office is located in San Diego, California. We all work remotely and we welcome candidates from across the United States for remote opportunities.

Salary commensurate with qualifications and experience. HRC provides a competitive benefits program including retirement, medical, dental and vision plans and paid vacations, holidays and sick leave.

Candidates should email a cover letter highlighting the reasons for their interest in the position, their current CV, and the names of two references that are familiar with the candidates past work to: Chair, HRC Information Technology Group Search, at the email address: it-search@hrcwater.org . Selected candidates will be provided an application form that must be completed prior to final selection.

The Hydrologic Research Center is an Equal Opportunity/Affirmative Action Employer. All qualified applicants will receive consideration for employment without regard to race, color, religion, sex, national origin, disability, age, protected veteran status, gender identity or sexual orientation.

In compliance with federal law, all persons hired will be required to verify identity and eligibility to work in the United States and to complete the required employment eligibility verification document Form I-9 upon hire.

Please note that under Covid-19 restrictions, HRC team members have not been engaged in professional travel since March 2020; however, the ability to potentially travel internationally is required.