

The HDF Group

Senior QA Engineer



The HDF Group provides a unique suite of technologies and supporting services that facilitate the management of large and complex data collections. Its mission is to develop, advance, and support HDF (Hierarchical Data Format) technologies and ensure long-term access to HDF data.

The HDF Group is a non-profit 501(c)3 spinoff from the University of Illinois, where it developed HDF technologies at the National Center for Supercomputing Applications from 1988-2006. The HDF Group contracts to provide customized consulting, software development, and advanced support services to organizations with challenging data-management requirements.

HDF technologies are used in virtually every industry and scientific domain to meet mission critical data management needs. Examples of the uses of HDF technologies include understanding global climate change, special effects in film production, flight testing, weather prediction, viewing medical images, analyzing DNA, designing vehicles, simulating thermonuclear explosions in space, and volcanology.

Job summary

The Senior QA Engineer will lead QA activities at The HDF Group. The successful candidate will work closely with the Director of Technical Operations on improving and overseeing software development processes and procedures at The HDF Group. They will be a member of the Technical Team and will lead the efforts to enhance and extend HDF software test suites; improve testing processes and procedures; serve as a resource throughout the full software development cycle from conception, design, implementation, and testing to delivery and maintenance.

Other responsibilities will include but not limited to maintaining issues database, working with the support team and investigating reported problems, documenting software defects, reporting defects to software developers, monitoring issues, and coordinating testing by users and third parties.

Some travel to client sites and to workshops and conferences may be required.

Essential job functions and key responsibilities

- Analyze, document, and improve existing software processes and procedures.
- Oversee and ensure that agreed-upon procedures and standards are followed.
- Assure that released products are designed and built in accordance with company and customer quality requirements.
- Recommend improvements to techniques, procedures, or other aspects of software development.
- Design, maintain, and extend regression and performance tests suites.
- Identify, propose, and implement QA/test quality metrics.
- Maintain issue database and monitor issue resolutions.
- Experiment with and employ new technologies relevant to the area of QA/testing.
- Assist in determining appropriate methods for release of quality software, including scheduling and documentation of the release.
- Provide input for preventing future problems as well as incorporating solutions to current concerns.
- Possibly take responsibility for project leadership, including staff supervision, work with customers, and project management.

- Train and mentor developers in the QA/testing areas.

Minimum requirements

- A Bachelor's degree is required, preferably in computer science or software engineering; Master's degree in SE is preferred.
- Experience and excellent knowledge of software development, configuration management and release processes.
- Knowledge of C and high-level scripting languages like Python or Perl.
- Five (5) plus years experience as a Software QA/Test Engineer.
- Experience developing, executing and maintaining both manual and automated test processes.
- Experience with UNIX and Windows operating systems.

Knowledge, Skills and Abilities required

- CSQE certification or equivalent
- Excellent analytical and problem solving skills.
- Excellent diplomatic skills.
- Self-motivation and creativity.
- Strong organizational skills.
- Ability to work on several tasks simultaneously.
- Excellent oral and written communication skills.
- Ability to communicate clearly with all types of audiences - from technical and non-technical customers, to managers, support and maintenance teams, and software developers.

Knowledge, Skills and Abilities preferred

- CMMI certification or equivalent
- Experience in project management.
- Experience with different types of software development methodologies including "agile" software development.
- Experience with software performance evaluation and enhancement.
- Experience working with HDF software.
- Experience programming with C++, Java and Fortran 9x.
- Experience using SVN, GNU autotools and CMake.
- Experience in technical writing.

Please submit a resume, cover letter, salary history and references to QA@hdfgroup.org for consideration. For additional information refer to our website at www.hdfgroup.org. The HDF Group is an Equal Opportunity Employer.