**Scientific Software Engineer**

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Brookhaven National Laboratory (www.bnl.gov) delivers discovery science and transformative technology to power and secure the nation’s future. Brookhaven Lab is a multidisciplinary laboratory with seven Nobel Prize-winning discoveries, 37 R&D 100 Awards, and more than 70 years of pioneering research. The Lab is primarily supported by the U.S. Department of Energy’s (DOE) Office of Science. Brookhaven Science Associates (BSA) operates and manages the Laboratory for DOE. BSA is a partnership between Battelle and The Research Foundation for the State University of New York on behalf of Stony Brook University.

**Organizational Overview:**

Brookhaven National Laboratory is entering an exciting new chapter with one of the newest and most advanced synchrotron facilities in the world. National Synchrotron Light Source II (NSLS-II) enables the study of material properties and functions with nanoscale resolution and exquisite sensitivity by providing world-leading capabilities for X-ray imaging and high-resolution energy analysis.

This facility is open to users from academia and industry and its operations are at a time when the world enters a new era with a global economy fueled largely by scientific discoveries and technological innovations. NSLS-II provides the research tools needed to foster new discoveries and create breakthroughs in critical areas such as energy security, environment, and human health.

**Position Description:**

The National Synchrotron Light Source II (NSLS-II) is seeking a scientific software developer to join the Scientific Computing & Data Acquisition, Data Management, Data Analysis Group. This position is needed to support the development and maintenance of a software infrastructure for data acquisition, management and analysis to support the scientific mission of NSLS-II.

 You will work on the development and application of user software for big scientific data acquisition, management, reduction, analysis, and visualization to serve the requirements of the Structural Biology Program.  The development work will also need to be coordinated and compatible with larger developments at the facility.

 The position classification offered will be commensurate with the candidate’s depth and breadth of experience.

**Essential Duties and Responsibilities:**

* Work with a team of scientists and engineers to lead in the design, development, and maintenance of reliable software for data acquisition, management and analysis.
* Collaborate with scientists and software engineers to define and implement the best strategies and approaches in data acquisition, scientific data handling, management, visualization, and analysis.
* Provide training resources, including documentation, manuals, and tutorials of software tools for users.
* Provide support for users in data collection methods and data analysis
* Present work and results at scientific meetings, and travel to multiple synchrotron facilities throughout the world.

**Position Requirements:**

**Required Knowledge, Skills, and Abilities:**

* Bachelor’s degree in Computer Science. Physical Sciences, Applied Mathematics or related field
* Minimum of (3) or more years of relevant experience.
* Ability to employ sound software engineering methodologies.
* Experience in the collaborative development of open-source software.
* Extensive experience with object-oriented programming and design patterns, Python, Git, and Linux.
* Self-motivated and able to work in a team environment.

**Preferred Knowledge, Skills, and Abilities: (experience with one or more of the following)**

* user interface development, particularly the Qt framework.
* web development technologies, with a preference for Python
* databases, relational and NoSQL (such as MongoDB).
* designing and implementing software systems of many different types
* cloud infrastructures like AWS, Azure, GCP, Heroku
* containerized deployment (Docker, Podman, Singularity, etc.)

At Brookhaven National Laboratory we believe that a comprehensive employee benefits program is an important and meaningful part of the compensation employees receive. Our benefits program includes, but is not limited to:

* Medical, Dental, and Vision Care Plans
* Flexible Spending Accounts
* Paid Time-off and Leave Programs (vacation, holidays, sick leave, paid parental leave)
* Lab-funded Retirement Plan
* 401(k) Plan
* Flexible Work Arrangements
* Tuition Assistance, Training and Professional Development Programs
* Employee Fitness/Wellness & Recreation:  Gym/Basketball Courts, Weight Room, Fitness Classes, Indoor Pool, Tennis Courts, Sports Clubs/Activities (Basketball, Ping Pong, Softball, Tennis)

**Brookhaven National Laboratory and the Energy and Photon Sciences Directorate are committed to your success. We offer a supportive work environment and the resources necessary for you to succeed.**

Brookhaven National Laboratory (BNL) is an equal opportunity employer that values inclusion and diversity at our Lab. We are committed to ensuring that all qualified applicants receive consideration for employment and will not be discriminated against on the basis of race, color, religion, sex, sexual orientation, gender identity, national origin, age, status as a veteran, disability or any other federal, state or local protected class.  
  
BNL takes affirmative action in support of its policy and to advance in employment individuals who are minorities, women, protected veterans, and individuals with disabilities. We ensure that individuals with disabilities are provided reasonable accommodation to participate in the job application or interview process, to perform essential job functions, and to receive other benefits and privileges of employment. Please contact us to request accommodation.  
  
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