

Radiation Detection Scientist (Mid-Career)

Location: Livermore, CA

What Your Job Will Be Like

We are seeking a motivated and energetic scientist to perform duties as a radiation detection scientist. You will conduct research and development in a dynamic, innovative, and fast-paced team environment as well as contribute to multiple projects through software and hardware development for the detection of radiation emitting materials. Your work will encompass laboratory experiments and testing of devices for specific applications; modeling and simulation of neutron/gamma localizers and imagers; and algorithm development for particle identification and image reconstruction using state-of-the-art facilities and equipment. You will apply your deep technical knowledge of radiation detection techniques to existing programs, as well as have the capability and independence to propose new groundbreaking projects that fall within the scope of Sandia's mission areas.

Qualifications We Require

- PhD in Particle Physics, Nuclear Engineering, Optical Sciences, Nuclear Physics or relevant discipline
- Demonstrated experience with either
 - developing algorithms for radiation detection and imaging techniques
 - readout hardware, data acquisition systems and software
- Demonstrated proficiency in scientific programming, preferably C++
- Ability to obtain and maintain a DOE Q-level security clearance

Qualifications We Desire

- Demonstrated proficiency in Monte Carlo-based radiation transport codes (MCNP, Geant4);
- Demonstrated expertise in statistics/data science
- Demonstrated experience in uncertainty quantification
- Demonstrated creativity and problem-solving skills
- Excellent verbal and written communication skills

About Our Team

The Radiation and Nuclear Detection Systems department undertakes R&D of ionizing radiation and rare signature detection systems to address broad nuclear security needs in support of various US Government programs. Through internal and external collaborations our department targets applications in nuclear proliferation detection, nuclear non-proliferation, international safeguards, arms control treaty verification, radiological emergency response, and other national security objectives. We specialize in designing detection systems for the anticipated radiation signature and background for specific applications starting at Technology Readiness Level 1 (basic research) all the way up to 5 (field experiments).

Position Information

This Limited Term Employee (LTE) position is a temporary position for one-year term, which may be renewed at Sandia's discretion up to a maximum of seven years. Individuals in LTE positions may bid on regular Sandia positions as internal candidates, and in some cases may be converted to regular career positions during their term if warranted by ongoing operational needs, continuing availability of funds, and satisfactory job performance.

Apply online at:
sandia.gov/careers
Job #: 676461

About Sandia:

Sandia National Laboratories is the nation's premier science and engineering lab for national security and technology innovation, with teams of specialists focused on cutting-edge work in a broad array of areas. Some of the main reasons we love our jobs:

- Challenging work with amazing impact that contributes to security, peace, and freedom worldwide
- Extraordinary co-workers
- Some of the best tools, equipment, and research facilities in the world
- Career advancement and enrichment opportunities
- Flexible work arrangements for many positions include 9/80 (work 80 hours every two weeks, with every other Friday off) and 4/10 (work 4 ten-hour days each week) compressed workweeks, part-time work, and telecommuting (a mix of onsite work and working from home)
- Generous vacations, strong medical and other benefits, competitive 401k, learning opportunities, relocation assistance and amenities aimed at creating a solid work/life balance*

World-changing technologies.

Life-changing careers.

*These benefits vary by job classification.

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All qualified applicants will receive consideration for employment without regard to race, color, religion, sex, sexual orientation, gender identity, national origin, age, disability, or veteran status and any other protected class under state or federal law.