



## X-ray Scientist

**Overview:** Quadridox Inc. is seeking a highly skilled and innovative X-ray Scientist to join our dynamic team in a full-time capacity. As a small but rapidly growing business, Quadridox focuses on the design, implementation, and analysis of cutting-edge X-ray sensing and measurement systems for applications in security, medical diagnostics, and non-destructive testing. We are currently embarking on groundbreaking projects to develop a novel X-ray scanner capable of detecting explosives and contraband in aviation security, identifying cancer and other diseases in the medical field, and analyzing anomalous material properties in industrial settings.

**Position Description:** We are looking for an exceptional X-ray Diffraction Physicist/Scientist who will play a pivotal role in the early-stage development of innovative measurement approaches. Your expertise will directly contribute to the advancement of Quadridox's computational X-ray scatter imaging systems. This role encompasses experimentation, simulation, physics-based data processing, and algorithm development, all in collaboration with a multidisciplinary team of scientists and engineers.

In this role, you will lead the design, development, and analysis of new X-ray measurement techniques, focusing on computational sensing of X-ray scatter signals. You will collaborate closely with senior technical roles and company leadership to define the direction of technology development and ensure successful implementation. Reporting to senior management, you will be entrusted with scientific leadership that combines technical expertise with strategic vision, driving our technology to exceed the expectations of clients and partners. As a key member of our team, you will be responsible not only for leading experiments, simulations, and data analysis but also for effectively communicating your findings, advancing the company's X-ray testbed capabilities, and contributing to project planning and execution.

### Major responsibilities

- Lead the design and execution of experiments, simulations, and data analysis to advance X-ray measurement methodologies.
- Collaborate with cross-functional teams in project planning, offering technical insights, timelines, and resource estimates.
- Mentor and guide junior engineers, fostering a culture of innovation, technical excellence, and continuous learning.
- Drive the evolution of Quadridox's X-ray testbed capabilities and support the development of computational imaging systems.
- Stay informed about emerging technologies and industry trends, integrating relevant advancements into our technology stack.
- Contribute to the preparation and submission of proposals for scientific and technical funding opportunities.
- Serve as a Principal Investigator or key personnel on science-based contracts, leading efforts to troubleshoot and resolve complex technical issues.

### Basic qualifications

- PhD in physics, engineering, or related field with a focus on X-ray diffraction or a similar discipline
- 5+ years of relevant experience in X-ray measurement, data processing, or related fields
- Demonstrated experience in leading and mentoring teams of engineers or scientists.
- Strong background in experimental design and X-ray measurement techniques.
- Exceptional problem-solving abilities with a strategic and analytical mindset.



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**Preferred qualifications**

- Proficiency in signal processing and noise modeling techniques
- Experience with MATLAB, Python, and OpenCV for data/image processing
- Experience with creating X-ray measurement testbed systems
- A track record of contributing to successful research and development projects in relevant fields

**What We Offer**

- Competitive salary
- Equity options enabling further engagement with our company growth and success
- Full health benefits with fully covered premiums
- Flexible schedules to support work-life balance
- A chance to be part of a growing startup with a cutting-edge technology focus.
- Opportunities for personal and professional growth.

**Location:** Hillsborough, NC

**Application:** To apply, please send your resume and a cover letter to [careers@quadridox.com](mailto:careers@quadridox.com)

**Affirmative action**

Quadridox Inc. is an Equal Employment Opportunity and Affirmative Action Employer and supports a diverse and inclusive work environment. We do not discriminate based on age, race, color, gender identity, religion, nationality, sexual orientation, marital status, pregnancy, medical condition, genetic information, military or veteran status, or physical or mental disability.