Position: MRI Sequence Development Scientist

About ViewRay® Systems

ViewRay Systems, Inc. is a private technology company seeking to provide the global radiation therapy community with advanced medical instruments incorporating the highest level of technology possible. Our belief is that only significant technological innovation can enable society to conquer disease. Our mission is to dare to change the paradigms of medicine and solve "impossible" technical problems to enable clinicians to effect a cure to save precious human lives, mitigate pain and suffering, and enhance quality of life. Our vision is to become the world's leader in producing highly-effective innovative technology to cure cancer.

ViewRay Systems designs, manufactures, and markets the MRIdian A3i® radiation therapy system to treat cancer patients with the smallest radiation therapy margins available[i] with the highest patient throughput demonstrated for the most complicated cases[ii] The system treats by aligning the sharpest radiation therapy beam on the market to diagnostic quality magnetic resonance images (MRIs) of the patient, adapts the treatment plan to the reality of the patient, and then uses the real-time MRIs to control the beam and record real-time doses delivered to the patient.

Job Description

ViewRay Systems is currently seeking an MRI Sequence Development Scientist, experienced in sequence development, who will share our passion for conquering cancer and help us in the development of novel cancer therapy systems.

Responsibilities:

- Develop innovative high-speed imaging techniques that capture anatomy motion in real-time for both 2D and 3D scans.
- Develop imaging techniques, tailored for the radiation therapy space, that will provide the required spatial integrity and image quality.
- Develop the required calibration sequences and workflow for image guided therapy systems.
- Work with a cross-functional team of engineers and scientists to translate promising prototypes into product while leading technical/clinical risk retirement.
- Provide technical expertise and support for projects with internal and external collaborators.
- Follow guidelines of internal design controls and change controls processes.

Required Qualifications

- Graduate degree in Physics, Applied Physics, Electrical Engineering, Biomedical Engineering or equivalent.

- Strong background in MR physics and pulse sequence design.
- Expertise in MR imaging techniques and clinical applications.
- Substantial experience in C++/C software design, implementation, and coding.
- Experience in working with internal and external partners.

Valued Qualifications

- Ph.D. Physics, Applied Physics, Electrical Engineering, Biomedical Engineering or equivalent.
- Experience using Matlab for signal and image processing.
- Desire and bandwidth to expand to other disciplines.
- Experience with E&M modeling.
- Experience in data acquisition and spectrometry.

Job Type: Full-time

Work Location:

In person in Cleveland, OH: Relocate before starting work

Benefits:

- Dental insurance
- Health insurance
- Vision insurance
- Paid time off

ViewRay Systems, Inc. is an Equal Opportunity Employer and does not discriminate on the basis of race, religion, color, creed, national origin, gender, age, sexual orientation, status as a protected disabled or Vietnam Era Veteran, disability, or any other legally protected status.

Reference: https://jamanetwork.com/journals/jamaoncology/fullarticle/2800541

[i] Kishan AU, Ma TM, Lamb JM, *et al.* Magnetic Resonance Imaging–Guided vs Computed Tomography–Guided Stereotactic Body Radiotherapy for Prostate Cancer: The MIRAGE Randomized Clinical Trial. JAMA Oncol. 2023;9(3):365–373. doi:10.1001/jamaoncol.2022.6558

[ii] Claudio Votta, *et al.*, Evaluation of clinical parallel workflow in online adaptive MR-guided Radiotherapy: A detailed assessment of treatment session times, Technical Innovations & Patient Support in Radiation Oncology, Volume 29, 2024, 100239. doi:10.1016/j.tipsro.2024.100239