The next evolution of MRI is here!

Neuro42 is a Bay Area startup developing point-of-care MRI and robotics for diagnosis and interventions of neurological conditions. Our vision at neuro42 is to arm neurophysicians with the finest in visualization and guidance technologies to provide best-in-class treatment solutions for their patients. Currently we are actively looking for multiple R&D positions including MRI Scientist, RF Engineer and Software Engineer.

Join our team as an **MRI Scientist**.

The MRI Scientist will be an individual with deep MR physics knowledge, motivated to develop this unique technology to help the neurological community impact patients’ lives.

**Main Responsibilities:**

- Drive the development of novel, clinically relevant MR techniques (pulse sequence, image reconstruction) on MR-guided robotics platform
- Develop and release prototypes of techniques in compliance with the highest source code quality
- Work closely with the lead systems engineer in identifying and implementing new MRI techniques for designing and developing the MRI system
- Collaborate in a team environment across multiple scientific and engineering disciplines, making rapid prototyping to help decisions on MR-guided robotics system
- Gather technical data through experiments, simulation and formal verification and generate technical reports to support a regulatory submission

**Minimum Qualification:**

- Ph.D. in Biomedical Engineering, Electric Engineering, Medical Physics or a related field
- 2+ years of professional experience in MR imaging or related field
- Experience in developing MR pulse sequence, reconstruction algorithm, and post-processing
- Strong knowledge of MR physics and medical imaging concepts
- Experience in developing MR application in a clinical setting
- Hands-on experience in software design, implementation, and coding using Python and MATLAB
- Creative and resourceful
- Excellent writing and presentation skills

**Desired Experience:**

- Prior experience with design, development, and implementation of novel pulse sequences on low-field MRI scanners with emphasis on the neurological applications
- Demonstrated clear thinking and problem-solving abilities, a creative mindset, and the ability to quickly grasp new ideas.
- Excellent skills in implementing, evaluating, and establishing new imaging approaches in a clinical/research environment
- Familiarity with human neuroanatomy and biophysical properties of brain tissue and brain diseases
- Working knowledge of MRI system hardware (RF coils, gradient coils, magnet, spectrometer, etc.)
- Knowledge of Artificial Intelligence and Machine Learning
Join our team as an RF Engineer.

The RF Engineer will be an individual with considerable coil design knowledge, motivated to develop this unique technology to help the neurological community impact patients' lives.

Main Responsibilities:

- Design low frequency RF transmit and receive coils for magnetic resonance imaging
- Brainstorm new concepts to design next generation of MRI coils
- Construct designed coils with appropriate non-magnetic components that are capable of handling high power transmission and achieving the desired resonance frequency.
- Simulate new coil designs using available simulation tools
- Has knowledge of MRI industry, is aware of the competition, and can use that knowledge to differentiate us in the market

Minimum Qualification:

- Master’s degree in Electrical Engineering, Biomedical Engineering, Physics, or closely related field
- Understands the function and design of RF circuits, RF electronics, antennas, and their applications for MR Transmit/Receive coils
- Experience with RF coil design for MRI
- Able to interpret technical documentation and schematics (electrical, wiring, and mechanical drawings)
- Creative and resourceful
- Excellent writing and presentation skills

Desired Experience:

- 2+ years of industry or research experience in RF design or circuit board design
- Experience with rapid prototyping or development, specifically for hardware components
- Experience performing test and evaluation activities, especially hardware elements/ factors
- Able to characterize coil elements using a network analyzer
- Preferred experience with RF analog hardware (preamplifiers, electromagnetic coils, RF shielding, etc.)
Join our team as a **Software Engineer**.

The Software Engineer will be an individual ready to take on high impact projects, including development of innovative software solutions that meet clinical needs with respect to functionality, performance, scalability, and reliability to development goals and principles.

**Main Responsibilities:**

- Design, develop and support projects throughout all phases of the software development process for MR-guided robotics platform
- Lead the design and implementation of software features to meet clinical requirements
- Develop and optimize clinical-friendly GUI to acquire and visualize medical images
- Write robust and maintainable codes that are easy to read and well-documented
- Support engineering by developing automation and test tools
- Collaborate in a team environment across multiple scientific and engineering disciplines, making rapid prototyping to help MR-guided robotics system architecture decisions
- Gather technical data through experiments, simulation and formal verification and generate technical reports to support a regulatory submission

**Minimum Qualification:**

- B.S. degree in Computer Science, Computer Engineering, Electrical Engineering, Applied Physics, or related field
- 2+ years of professional software development experience
- Strong proficiency in programming using Python, Qt, and C++
- Strong knowledge of database framework and language
- Understanding of object-oriented design, algorithms, and data structures
- Proficiency in with the Linux Operating System and command-line tools
- Aptitude to quickly learn new languages and technologies as necessary
- Strong passion for developing products that deliver a great user experience
- Detail oriented with a positive attitude with a willingness to share and learn from others

**Desired Experience:**

- Experience engineering software systems of medium-to-large scope and complexity
- Practical knowledge of agile software development methodologies
- Experience contributing to the architecture and design of medical software systems
- Prior medical imaging software industry experience is desirable
- Thoroughly test code through automated unit, integration, and end-to-end testing
- Verify feature usage through testing in local, staging, and production environments
- Excellent written and verbal communication skills

If you are a motivated individual, looking to join a highly enthusiastic team that values integrity, teamwork and diversity in thought, neuro42 is where you want to be. A competitive salary, premium medical benefits, and the opportunity to be working on the most innovative technology awaits you. Apply today with your resume and a cover letter via hello@neuro42.com