RESEARCH SCIENTIST ENGINEER 3

Req #: 171112
Department: RADIOLOGY
Posting Date: 11/19/2019
Closing Info: Open Until Filled
Salary: Salary is commensurate with education and experience.
Shift: First Shift

As a UW employee, you will enjoy generous benefits and work/life programs. For a complete description of our benefits for this position, please visit our website, click here.

Notes: Please note that this position has been reposted. If you have already submitted your application, you need not submit it again, as it has already been received.

As a UW employee, you have a unique opportunity to change lives on our campuses, in our state and around the world. UW employees offer their boundless energy, creative problem solving skills and dedication to build stronger minds and a healthier world.

UW faculty and staff also enjoy outstanding benefits, professional growth opportunities and unique resources in an environment noted for diversity, intellectual excitement, artistic pursuits and natural beauty. All of which has allowed the UW to be nationally recognized as a “Great College to Work For” for four consecutive years.

The UW Department of Radiology is internationally recognized as dynamic, progressive, with high impact on the present and future of the field of Diagnostic Imaging. As a "Top Ten" Radiology Department in a US News and World Report "Top Ten Hospital", the academic Radiology enterprise complements the clinical, teaching and research activities of one of the nation's leading Medical Schools. The broad strength of the University of Washington is reflected in its recurring rank among the top two recipients of federal research grants.

The Department of Radiology currently has an outstanding opportunity for a RESEARCH SCIENTIST ENGINEER 3.

The Research Scientist/Engineer 3 contributes to the growth & success of the Department by executing the mission and vision. The Integrated Brain Imaging Center in the UW Department of Radiology is a research resource center for the interdisciplinary triangle of human MRI based imaging, cognitive neuroscience, and medicine. This is a vibrant multidisciplinary unit working on cutting edge multimodal imaging methods, interoperable software tools, and translation of these approaches to clinical populations.

Reporting to the Director of the Integrated Brain Imaging Center (IBIC), this position provides specialized science and research consulting support for the IBIC Research Group within the Department of Radiology. The successful candidate will be one who thrives in a multidisciplinary environment; can maintain a cutting edge conceptual understanding of image processing methods, analysis, and interpretation; views operationalizing methods on science as an exercise in problem solving; and enjoys integrating science and methods, operationally and conceptually. The successful candidate will demonstrate a trajectory of increasing responsibility for facilitating projects requiring divergent intellectual disciplines.

Essential Duties & Responsibilities:

• Interacts in a collaborative manner with external investigators to design and execute pilot imaging experiments. Prototypes implementation of image analysis pipelines for new projects. Maintains clear documentation of such procedures.
• Documents and scripts image analysis procedures, including quality control elements, for execution by junior staff. Monitors the work of junior staff to ensure that correct procedures are followed; provides direction to assure completion of technical tasks and projects.
• In consultation with faculty, selects and applies standardized scientific, statistical, and image analysis procedures and techniques, involving potentially conflicting design requirements, multiple analysis options, integration of modalities, and constraints arising in subject populations.
• Interacts with investigators to understand and define programming and image analysis needs; integrates and evaluates products available from other centers and platforms; tests and validates analysis methods; recommends techniques, software packages and programming languages; interfaces with programming staff and investigators.
• Interacts in a collaborative manner with other team members to accomplish organizational goals; provides ideas to improve organizational efficiency at the group level.
• Assists in the development of on-line educational materials pertaining to experimental design of functional and structural imaging studies, relevant image analysis tools and image analysis procedures.
• Uses statistical and database management programs to analyze data and prepare summary narrative reports, graphs, tables, charts and illustrations.
• Monitors and oversees the work of the laboratory staff in the areas of image analysis, methods development and validation, and development of educational materials.

The participation in each of the related sub-projects described above will include some component of the following tasks:
• Refining and defining research problems,
• Designing and/or refining methodology,
• Performing or assisting in the experimental data acquisition,
• Analyzing results,
• Presenting research results in publishable form and at meetings, and
• Perform related duties as assigned.

Self/Team Development:
• Provide innovative, visionary and collaborative initiative.
• Continue to grow your own skill set necessary in your position.
• Contribute to a team atmosphere in working with all internal/external customers.

Minimum Requirements:
• Bachelor’s degree in a quantitative discipline (e.g engineering, computer science, neuroscience) or related field.
• At least three years of experience in a related area or equivalent.
• Prior experience with computerized image processing and analysis in a scientific setting.
• Familiarity and fluency with a general purpose scientific interpreted computer language (e.g. Matlab, Python or R).
• Expertise in fMRI experimental design.
• Familiarity with at least one widely used open source academic imaging processing software package: FSL, SPM, FreeSurfer, AFNI or the equivalent.
• Time management, multi-tasking, and organizational skills and a positive attitude to thrive and succeed in a fast-paced environment.
• Meticulous attention to detail.
• Enjoyment of problem solving.
• Proficient knowledge of Microsoft Office Products (Word, Excel, PowerPoint, Outlook), e-mail, internet, and web access.
• Professional communication style, and presentation skills.
• An ability to communicate on technical subjects effectively with non-technical faculty and staff.

Equivalent education/experience will substitute for all minimum qualifications except when there are legal requirements, such as a license/certification/registration.

Desired:
• PhD in a field related to human brain mapping (e.g. neuroscience, psychology, imaging physics, engineering).
• Knowledge of neuroscience, especially human neuroanatomy.
• Broad knowledge of statistics, particularly general linear models and imaging statistics.
• Familiarity with multiple academic imaging processing software packages: FSL, SPM, FreeSurfer, XNAT, BioImage Suite, and/or AFNI and similar packages.
• Familiarity with parallelization of workflow across a local or cloud-based compute cluster.
• Familiarity with magnetic resonance imaging.
• Familiarity with Debian Linux.
• Familiarity with Python.
• Familiarity with R.
• Knowledge of and experience with the University of Washington.

Work Environment:
• Schedule is normally 8a to 5p, M-F, but is not always fixed and workload does vary. The incumbent’s first responsibility is to complete tasks rather than keep to a fixed schedule. Flexibility in schedule and intensity of work is necessary.
• Some travel between sites will be necessary by UW Health Services or other shuttle

Application Process:
The application process for UW positions may include completion of a variety of online assessments to obtain additional information that will be used in the evaluation process. These assessments may include Work Authorization, Cover Letter and/or others. Any assessments that you need to complete will appear on your screen as soon as you select “Apply to this position”. Once you begin an assessment, it must be completed at that time; if you do not complete the assessment you will be prompted to do so the next time you access your “My Jobs” page. If you select to take it later, it will appear on your “My Jobs” page to take when you are ready. **Please note that your application will not be reviewed, and you will not be considered for this position until all required assessments have been completed.**

Committed to attracting and retaining a diverse staff, the University of Washington will honor your experiences, perspectives and unique identity. Together, our community strives to create and maintain working and learning environments that are inclusive, equitable and welcoming.

The University of Washington is a leader in **environmental stewardship & sustainability**, and committed to becoming climate neutral.

The University of Washington is an equal opportunity, affirmative action employer. To request disability accommodation in the application process, contact the Disability Services Office at 206-543-6450 / 206-543-6452 (tty) or dso@uw.edu.