

Research Laboratory Specialist Associate

Job Summary

The Department of Radiology at Michigan Medicine of the University of Michigan has an immediate opening at the associate level. The candidate will be responsible for aiding the PI in oversight of staff and progress of individual projects. Candidates will also assist the PI and members of the group in the processing of serial medical image data and correlate findings to clinically meaningful endpoints for applications in pulmonary diseases and cancer. Image processing techniques include three dimensional reconstructions, image segmentation, image registration and voxel based classification on multispectral quantitative images.

Our group has a long history of algorithmic development of translatable MRI and CT-based biomarkers for disease phenotyping and prediction of therapeutic response and survival. The mission of our group is to fully exploit the spatial and functional information within clinical imaging data with the goal of advancing personalized medicine, both in terms of optimizing disease management, and tailoring treatment to the individual patient. On-going projects include topological feature extraction for improved COPD subtyping, optimized radiation planning to minimize lung injury in lung cancer patients, and improve detection of deployment related small airways disease in postcombat military personnel. These studies are performed in a multi-disciplinary environment which include scientists, physicians, statisticians and engineers, as well as large clinical trials and industrial partners. We seek individuals with the motivation and initiative to expand the successes of the group.

Responsibilities

- Assist the PI in day to day oversight of staff and students
- Assist the PI in managing progress of projects and preparation of manuscripts
- Interact with the group's key internal and external collaborators
- Image processing and analysis
- Data management
- Coordinate lab training and use of imaging equipment
- Hiring and training new students

Required Qualifications

The applicant must be knowledgeable in thoracic radiology and computed tomography (CT), with practical experience in image post processing tools such as three dimensional reconstructions, image segmentation, and image registration in clinical serial medical image data, with an emphasis on CT. The applicant must also have skills in the analysis and application of quantitative techniques to clinical CT data sets such as generation of voxel based image classification maps (i.e. Parametric Response Mapping), and extraction of information (i.e. CT based metrics) in the identification, measurement and quantification of pulmonary disease severity and phenotype. Must have experience in statistical analysis of medical image data, and some basic knowledge in programming languages like Matlab. The candidate must have a Bachelor's degree in biological sciences, computer sciences, or related field. Master's degree is preferred with 1 to 3 years related experience.

Desired Qualifications

We are seeking a dynamic individual with a strong interest in participating in multidisciplinary team projects. Excellent written and oral communication skills are required for success in our collaborative research environment. The applicant must be ambitious, talented, and self-motivated with an interest in leveraging our research interests, as this position emphasizes the ability to learn new concepts and skills quickly. The candidate should have demonstrated practical experiences with computational methods and at least 1 year work experience in a research laboratory. The candidate will be involved in contributing towards developing manuscripts for publication and presentation within/outside UM.

To apply to this position please supply the following material to Aleksa Fortuna (abfortun@med.umich.edu) with "Research Lab Associate Position" in the subject line. Material should include: 1) cover letter and 2) CV. Review of applications will begin immediately and will continue until the position is filled.