

## MRI Research Position in Structural and Functional Neuroimaging

The Cleveland Clinic Lou Ruvo Center for Brain Health in Las Vegas, NV, has a position available for a researcher (MRI Research Engineer) in structural and functional neuroimaging (MRI/fMRI/DTI).

**SUMMARY:** The MRI Research Engineer will work in structural and functional neuroimaging data analysis. In particular, the candidate will develop new algorithms and software for MRI/fMRI/DTI data analysis and fMRI stimuli presentations for visual, olfactory, and memory tasks. Current research interests of the Institute are Alzheimer's disease, Parkinson's disease, and Multiple Sclerosis. The Lou Ruvo Center has a Siemens 3-Tesla Skyra magnet as well as a Siemens PET/CT.

### JOB RESPONSIBILITIES:

The key responsibility will be investigation of new methodological approaches, and algorithm and software development for fMRI, MRI, DTI. Potential research activities involve ICA, clustering, multivariate analysis, machine learning or other novel approaches to obtain activation and connectivity patterns in the brain. The successful candidate has strong analytical skills, experience and interests in applied mathematics, statistics, MR physics, programming (Python and Matlab), and signal & image processing.

**Required Qualifications:** Minimum Requirements: M.S. or Ph.D. degree in mathematics, statistics, physics, medical physics, neuroscience, biomedical or electrical engineering, or related field; MRI/fMRI knowledge and experience in statistics and digital signal processing; proficiency in Matlab and python programming. Candidates with experience in fNIRS are also encouraged to apply.

### PREFERENCE FOR INDIVIDUALS WITH THE FOLLOWING Skills:

Knowledge of MRI/fMRI and related signal processing  
Experience with fMRI and time series analysis (ICA, clustering, general linear model regression)  
Mathematical and analytical skills  
Signal and image processing skills  
Programming skills (Linux, Unix, Matlab, Python)  
Organizational, communication, written and verbal skills

**LICENSURE/CERTIFICATION/REGISTRATION:** None required.

**REQUIRED EXPERIENCE:** M.S. or Ph.D. degree, minimum of 1 year research experience in the MRI/fMRI field related to MR image processing, MRI/fMRI/DTI data analysis, and experimental design.

**PHYSICAL REQUIREMENTS:** Manual dexterity to operate office equipment. Ability to lift and transport up to 15 pounds. May require extended periods of standing, walking, and sitting. Good visual acuity through normal or corrected vision.

### How to apply:

Interested applicants please submit a CV and a cover letter.

### Contact address:

Dietmar Cordes

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Lou Ruvo Center for Brain Health

Las Vegas, NV

