



Job Summary:

The Research Computing Center and MRI Research Center at The University of Chicago are working together on a project to investigate the early detection of prostate cancer using multi-parametric MRI (mpMRI) imaging and quantitative MRI. A computational scientist with experience in machine learning is needed to implement deep learning tools for deep learning computer-aided diagnostic systems that will demonstrably help clinicians to get the best possible prostate cancer diagnosis from mpMRI. Research activities will be to focus on MRI, although other imaging modalities will likely be employed to provide complimentary information.

This is a one-year position, if additional funding is secured the position may continue beyond one year.

Responsibilities:

- Serve as a central knowledge resource for faculty and researchers;
- Develop automatic multi-object segmentation, quantitative imaging biomarkers, and multivariate analysis methods using a massive MRI database.
- State-of-the-art deep learning models will be continuously evaluated and implemented in a clinical prototype for validation and feedback. Results will be presented at scientific meetings and published in journals.
- Data analysis methods will focus on the application of pattern recognition/machine learning/deep reinforcement techniques to analyze these multi-parametric data sets;
- Demonstrate the developed artificial intelligence applications in automated prostate segmentation and in cancer detection using multi-parametric MRI imaging.
- Help faculty with grant proposals by contributing sections describing the interplay between research objectives and new or expanded data resources.
- Perform other duties as assigned.

Qualifications

Education:

- Master's degree in computer science, computer engineering, data science, or similar required. A Ph.D. strongly preferred.

Experience:

- Background in machine learning and deep reinforcement learning, and with clear interest in image analysis required
- Experience with deep learning frameworks, such as Keras, mxnet, scikit-learn is required
- Software experience with Python and/or C++ required;
- Strong computational image processing and visualization skills required;
- Experience with MRI is strongly preferred.

To apply, visit [https://uchicago.wd5.myworkdayjobs.com/en-US/External/job/Hyde-Park-Campus/Computational-Scientist\\_JR03542](https://uchicago.wd5.myworkdayjobs.com/en-US/External/job/Hyde-Park-Campus/Computational-Scientist_JR03542) or [www.uchicago.edu](http://www.uchicago.edu) and search for Job # JR03542.