Haystack Observatory

Postdoctoral Associate Computer Science

The Massachusetts Institute of Technology, Haystack Observatory is expanding its Computer-Aided Discovery efforts to provide scalable machine assistance for Big Data in geoscience and astronomy. As data volumes from ground-based and space-based instrument networks are growing beyond Petabytes, smart computational approaches are required for data collection and analysis. Scientific libraries and toolsets need to leverage parallel computing on multicore processors, clusters, and clouds in order to manage and analyze such vast amounts of data.

Postdoctoral Opportunity. The Computer-Aided Discovery program represents an excellent opportunity for Computer Scientists to develop new directions of Big Data science and strengthen the Astroinformatics / Geoinformatics group. As a leader in astronomy, geoscience, and atmospheric science instrumentation, MIT Haystack provides a fruitful ground for novel Computer Science research. The selected candidates will have an opportunity to tackle new problems and work with experts in interdisciplinary teams. Studies at Haystack include for example space weather and ionospheric monitoring using mobile phones, Very Long Baseline Interferometry observations for studies of the solid Earth, ultra-high resolution imaging of super massive black holes, low frequency imaging of the Sun, and detection of remnant radio signals from the early Universe. The successful applicant will be expected to play a major role in the Computer-Aided Discovery program and contribute to the research and technical development of Computer-Aided Discovery systems. The research center provides a stimulating work environment on a 1300-acre radio science campus in Westford, Massachusetts. The salary is competitive and appointments will initially be for two years, with secure funding for a possible extension to a third year.

Qualifications/Requirements: Recent Ph.D. in Computer Science or related fields. Consideration will be given to individuals who offer a strong grounding in areas such as machine learning, algorithm development, statistics, imaging, simulation, numerical methods, parallel computing, or software engineering. Our interdisciplinary team also welcomes applications from other Postdocs who have a strong interest in any of the above areas, and who are interested to develop new areas of science and solve complex problems. Demonstrated ability to effectively communicate research results in the form of peer-reviewed research journals articles and oral presentations is a must. Must display outstanding scientific research ability, excellent communication skills, and the willingness to work with a team. In addition to applying online, http://jobs.mit.edu, please send a brief summary of research interests, a CV that includes a list of publications, and the contact information for three references to job@haystack.mit.edu with subject "Application Computer-Aided Discovery/Pankratius".