

Description Type: Department Description

The Computer Science and Informatics Department at Sandia National Laboratories conducts research and development in discrete mathematics, informatics, and computer science. Specific research topics include graph algorithms, multi-dimensional algebraic methods, machine learning, and large-scale text analysis. The department partners to support national security missions. Full applications span data ingestion, aggregation, analysis, and presentation of results. To this end Sandia maintains active programs in interactive large-scale information visualization, and massively-parallel hardware platforms (thousands of processors). Newly funded research involves analytical approaches for discovering relationships and predicting responses in large-scale data represented as graphs. Computability and algorithm scalability are critical and permeate all fields of study.

Description Type: Job Description

Sandia National Laboratories seeks one or two new researchers for positions in the area of statistics on large-scale informatics graphs. These graphs might arise from the analysis of complex social and engineered networks, such as might be derived from human interactions or internet traffic, as distinguished from biological networks. Data sets may involve millions of points with hundreds of variables each, and require massively-parallel computing. Of particular interest is the incorporation of statistics with uncertainty, forecasting, and graph-feature identification. Prediction, hypothesis testing, and validation & verification methodologies are all relevant research topics. Relevant expertise includes stochastic process modeling, Monte Carlo Markov Chain generation, Bayesian analysis approaches, multivariate analysis, sensitivity analysis, and nonparametric statistical methods.

The successful applicants will be expected to conduct world-class research resulting in peer-reviewed publications. The successful applicants will be expected to partner with others to advance the broad program described in the Department description. This includes taking an interest in informatics-based science applications, interacting with consumers of information, and developing application-specific software solutions.

Description Type: Required / Desired Criteria

A PhD in statistics, mathematics, computer science, or equivalent is required. The successful applicant(s) must have the ability to work in a collaborative research environment, and be willing to work in national security application domains. A strong publication record and object-oriented software skills are required. The ability to obtain and maintain a U.S. DOE security clearance is required.

Description Type: Equal Employment Opportunity

Sandia National Laboratories is an Equal Opportunity Employer M/F/D/V. If this position requires a Department of Energy (DOE)-granted security clearance, U.S. citizenship and employee eligibility for clearance processing will be required at the time of hire. If you hold dual citizenship and you accept a job offer for a position that requires a DOE-granted security clearance, you may be asked by DOE to renounce your foreign citizenship and retain only your U.S. citizenship.

Candidates must apply electronically to this requisition. Apply online to the Sandia National Laboratories web site at <http://www.sandia.gov/employment>, click Career Opportunities, and Search Job Postings for 63026. In addition, submit hardcopy application materials (a letter of interest and CV) electronically to the manager at [slkroun@sandia.gov](mailto:slkroun@sandia.gov).