The Computational Engineering Division (CED) has multiple openings for Applied Statisticians with significant expertise in one or more of the following: Adaptive Design of Computer Experiments, Classification and Anomaly Detection, High Performance Statistical Computation, Time Series Analysis, Tracking and Image Analysis, Statistical Network Analysis, Statistical Decision Systems, and Massive Data Analysis. Will participate in programmatic efforts to develop and apply advanced statistical analytic methods in support of Laboratory mission objectives. The selected candidate(s) will work independently to research and develop new statistical techniques to meet data analysis challenges. Will interact frequently and provide formal presentations to Laboratory managers and external government contacts and sponsors. These positions will report to a Group Leader within the Data Analytics and Decision Sciences Section.

The selected candidate(s) will set broad research and project vision and strategy for utilizing advanced statistical methods in a variety of national security applications, including energy, climate, nonproliferation, biodefense, and cyber security. The selected candidate(s) will influence technical direction and be capable of acting as the principal scientific leader on large projects, where they will be responsible for directing and coordinating the work of multiple team members. Will develop new ideas and contribute to sponsor and customer interactions in order to define new opportunities and strategies for providing statistical support to Laboratory programs. The selected candidate(s) will deliver solutions that require in-depth analysis and the development of novel statistical methods or the creative use of previously published statistical methods. Will provide expert advice to senior management and external sponsors.

**ESSENTIAL DUTIES**

- Scope, plan, and formulate advanced statistical modeling efforts for physical, engineering, and computational systems relevant to national security.
- Identify and define complex problems stemming from national security research, propose advanced analysis methodologies, collect and analyze data, and write reports documenting results.
- Adapt and apply existing statistical methods and theories to new problem domains.
- Develop, implement, validate, and document independently specialized statistical analysis tools utilizing high-level programming languages.
- Perform all assignments in accordance with ES&H, security, and business practice requirements and policies.

**IN ADDITION AT THE SES.4 LEVEL**

- Independently as a project subject matter expert (SME) within the Laboratory, and as the primary technical contact to external sponsors and customers.
- Set broad scientific vision and strategy and influence technical direction by applying for internal and external funding opportunities for self and others.
- Lead a team of researchers to produce high quality deliverables.

**ESSENTIAL SKILLS, KNOWLEDGE, AND ABILITIES**

- MS degree in statistics or related field, or an equivalent level of demonstrated knowledge.
- Demonstrated advanced programming skills in at least one prototyping language R/ Matlab/ Python as well as one of C/C++/Java to enable high performance statistical computation.
- Significant experience developing and applying advanced statistical/machine learning models and algorithms for one or more of the following areas: classification, clustering, anomaly detection, density estimation, pattern recognition, knowledge discovery.
- Demonstrated ability to work independently, as well as part of a multidisciplinary team.
- Demonstrated advanced verbal and written communication skills necessary to prepare and present papers, reports, proposals, and document results.
Demonstrated ability and interest in acquiring substantial domain knowledge in fields of application and ability to communicate effectively with subject matter experts.  
Ability to travel as necessary to collaborate with industrial and academic partners.

IN ADDITION AT THE SES.4 LEVEL

- Significant experience in providing expert level technical leadership for statistical analysis projects and providing solutions to highly complex problems.
- Demonstrated subject matter expertise in applied statistical modeling, in one or more of the following areas: classification, clustering, anomaly detection, density estimation, pattern recognition, or knowledge discovery.
- Significant experience leading complex projects with responsibility for budgets, schedules, and deliverables; experience with project management and resource allocation.
- Experience mentoring individuals and teams.
- Demonstrated expert communication, facilitation, and collaboration skills to effectively present, explain, influence, and advise internal management and external sponsors.

DESIRED SKILLS, KNOWLEDGE, AND ABILITIES

- PhD in statistics or related field.
- Experience with large-scale computational modeling, including parallel computing frameworks and GPUs.
- Demonstrated ability to attain subject matter expertise in multiple application domains.
- Demonstrated ability to train scientists and engineers in the proper use of statistical inference.
- Publication record in peer-reviewed journals.

SPECIAL REQUIREMENTS

Pre-Placement Medical Exam: None required.
Pre-Employment Drug Test: External applicant(s) selected for this position will be required to pass a post-offer, pre-employment drug test.

Anticipated Clearance Level: Q (Position will be cleared to this level). Applicants selected will be subject to a Federal background investigation and must meet eligibility requirements for access to classified information or matter. In addition, all L or Q cleared employees are subject to random drug testing. If you hold multiple citizenships (U.S. and another country), you may be required to renounce your non-U.S. citizenship before a DOE L or Q clearance will be processed/granted.

LLNL is an affirmative action/ equal opportunity employer. All qualified applicants will receive consideration for employment without regard to race, color, religion, marital status, national origin, ancestry, sex, sexual orientation, gender identity, disability, medical condition, protected veteran status, age, citizenship, or any other characteristic protected by law.

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