

Job Description

Liberty BioSecurity, LLC is seeking a highly motivated and experienced computational scientist to be a part of our Expeditionary Science and Special Programs team in Worcester, Massachusetts. Primary responsibilities include the development of computational and statistical tools for the analysis of gene function and proteomics from next generation sequencing data of novel organisms. Activities support the microbial and pathogen identification, microbiome analysis, precision medicine applications, and regulatory testing for commercial, government and genetic intelligence applications. The successful candidate can work effectively in a highly dynamic and collaborative environment of researchers and data science sections.

Responsibilities:

- Develop analysis pipeline through the design and deployment of robust workflows using custom scripts to support the analysis of high-throughput data (cleaning, normalization, analysis, interpretation and visualization);
- Construct a survey methodology, program a statistical model for population growth, develop databases to compile vast amounts of information from activities (such as gene and protein expression profiling);
- Analyze internal and external -omic data sets to develop and discover novel biomarkers;
- Mine proprietary and publicly available genomic datasets to generate novel hypotheses or insights with commercial relevance;
- Maintain scientific advancement, emerging approaches and innovations in the NGS analysis fields.

Qualifications:

- PhD in Bioinformatics or similar discipline with expertise in Computational Biology, Immunology, Statistics, and Network Pharmacology/Systems Biology OR a MS in the aforementioned AND at least 3 years of experience in academic or industry setting is required
- Experience with high content data analysis, such RNAseq, and proteomic data.
- Experience with microbiome data and microbiome-related software (e.g. QIIME, Biobakery).
- Solid statistical training and experience in statistical modeling using Python and R.
- Experience with sequence analysis, alignment, and assembly (ex. MUSCLE, T-COFFEE, BLAST, ClustalW(2), HMMer, etc.).
- Have Python, PHP, PERL, C++, C#, Ruby, Javascript and Java programming experience.
- Experience with datastores/databases: MySQL, PostgreSQL, Hive, Hadoop.
- Experience with high performing computing or cloud computing, specifically AWS.
- US work authorization is required; no visa sponsorship available.

Desired Skills /Experience:

- Experience analyzing “omics” of novel fungal and bacterial organisms.
- Work experience in pharmaceutical or bio-tech industry.
- Experience with bioinformatics tools such as: Novoalign, STAR, BWA, GATK, Samtools, Annotator, SnpEff, Limma, EdgeR, DESeq2, etc.

About EdenRoc and Liberty BioSecurity

A team of world-class scientists, physicians and national security practitioners that together develop cutting edge capabilities across the life sciences.



Computational Scientist

Liberty's innovations ensure that the United States and her allies maintain a strategic advantage in genetics, human performance, pharmacology, bioinformatics, pathogen surveillance/detection, and the treatment of emerging health threats.

Founded in 2014, Liberty is a privately held entity and founding member of the EdenRoc Sciences family of companies. Headquartered in Virginia, our research and development facilities are located worldwide. <https://www.libertybiosecurity.org/>

How to Apply

Please submit your resume, references, transcripts, and a cover letter describing:

- your interest in the position
- approach to software development
- highlights from projects or teams
- functional genetics/proteomics experience
- date you are available to begin working

Send the above to: sean@libertybiosecurity.com,

EOE: All qualified applicants will receive consideration for employment without regard to race, color, religion, sex, sexual orientation, gender identity, national origin, disability, or veteran status.