

PERFORMANCE & ALGORITHMS RESEARCH GROUP COMPUTER SCIENCE POSTDOCTORAL FELLOW

The Performance and Algorithms Research Group in the Computational Research Division at Lawrence Berkeley National Laboratory (LBNL) has an immediate opening for a postdoctoral fellow to develop advanced algorithms and high-performance parallel codes for computational genomics problems. The project focuses on developing exascale algorithms and software to address the challenges of assembly and analysis of metagenomic data. This appointee will be part of an experienced research team, including Berkeley Lab and the Joint Genome Institute to help develop one of the world's fastest supercomputing metagenomics codes, funded via DOE research grants. Duties include algorithm design, software implementations, and publications targeted at top-tier research conferences and journals.

Parallel Computational Genomics

Key Success Factors:

- PhD degree in computer science, computer engineering, computational science or a related technical field is required.
- Expertise in one or more of the following areas: parallel programming, communication optimizing on distributed-memory architectures, performance analysis, modeling, and benchmarking.
- Demonstrated ability to work independently as well as collaboratively.
- Excellent written and oral communication skills.

Additional desired qualifications:

- Experience with distributed-memory programming using MPI and/or global address space programming.
- Experience implementing and optimizing bioinformatics algorithms.
- Experience with many-core and accelerator-based architectures.
- Experience with statistical and/or graph algorithms.
- Experience with parallel file systems.

