

About RCSB PDB

RCSB PDB is a world-renowned, scientific organization focused on serving technical, educational and other programmatic needs of scientific and research communities worldwide.

RCSB.org serves millions of users in academia and industry. The RCSB PDB development team, located at UCSD/SDSC and Rutgers, creates leading edge web technologies targeted for scientific and educational audiences.

About UCSD/SDSC

As an Organized Research Unit of UC San Diego, the San Diego Supercomputer Center (SDSC) is considered a leader in data-intensive computing and cyberinfrastructure, providing resources, services, and expertise to the national research community, including industry and academia. Cyberinfrastructure refers to an accessible, integrated network of computer-based resources and expertise, focused on accelerating scientific inquiry and discovery. SDSC supports hundreds of multidisciplinary programs spanning a wide variety of domains, from earth sciences and biology to astrophysics, bioinformatics, and health IT. SDSC launched Comet, a petascale supercomputer that joins the Center's data-intensive Gordon cluster. SDSC is a partner in XSEDE (eXtreme Science and Engineering Discovery Environment), the most advanced collection of integrated digital resources and services in the world.

1. Postdoctoral Researcher (UCSD)

We are seeking a talented, highly motivated postdoctoral researcher to join the multidisciplinary team of the RCSB Protein Data Bank at UC San Diego, San Diego Supercomputer Center (SDSC).

The successful applicant will work on research projects that drive next generation search tools at rcsb.org. Dealing with redundancy within the Protein Data Bank (PDB) is an important challenge in face of the ~10% year-on-year growth in structural data stored in the PDB. Tackling the redundancy problem requires understanding of similarities and differences among macromolecules at many different levels. She/he will be expected to contribute to this project by devising new and improved algorithms for protein family classification at levels such as biological assemblies. The ultimate aim of this project is to improve the findability of data in the PDB by building the next generation search engine for structural molecular biology.

Note, this position is reviewed annually on the basis of performance and can be renewed.

Requirements

Qualifications: Ph.D. in one of the following research areas

- Computer Science with a focus on Bioinformatics
- Structural Bioinformatics, or related field with a focus on software development
- Structural Biology with a focus on software development

Qualifications

- Demonstrated proficiency in a high-level programming language, such as Java, Python, C++, and experience with state of the art software engineering tools.
- Strong skills in problem solving and algorithm design are required.
- A background in NoSQL database technologies would be beneficial.
- Experience in development of modern web applications, user interface design, or scientific visualization would also be a plus.
- We expect candidates to have shown high productivity demonstrated by publications and contributions to open source software projects.
- Excellent written and oral communication skills are required.

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