Job Title	Computational Stuctural Biologist
PVN ID	RC-2108-004210
Category	Research
Location	CUNY-ADVANCED SCIENCE RESEARCH CENTER
Department	Structural Biology Initiative
Status	Full Time
Salary	Depends on qualifications
Hour(s) a Week	35
Closing Date	Oct 31, 2021 (Or Until Filled)

General Description

The CUNY ASRC Structural Biology Initiative seeks applications from individuals with experience in software development and NMR (Nuclear Magnetic Resonance) spectroscopy, computational biology, computer science, biology or chemistry to serve as computational scientists.

The selected candiate will work on a variety of projects that all involve development of state-of-the-art applications for analysis of NMR data on the structure and dynamics of proteins and RNA. The NMR applications include NMRFx (https://nmrfx.org) and RING NMR Dynamics (https://link.springer.com/article/10.1007/s10858-020-00350-w). Depending on the skills and interests of the individual the project can involve machine learning (including deep learning), GPU programming, Graphical User Interface development, and numerical methods for analysis of macromolecular structure and dynamics.

Work will be done in collaboration with NMR development and application scientists at the CUNY ASRC (https://asrc.gc.cuny.edu) and the New York Structural Biology Center (https://nysbc.org).

Position is available immediately.

Other Duties

Other duties may include:

- Developing new algorithms for data analysis
- Maintaining computer hardware and software
- Writing documentation
- Developing software test suites
- Training users in use of the developed software

- Presenting at workshops and meetings.

Qualifications

Successful candidates must have significant experience in software development with either the Java or Python programming languages (preferably both) and should have an interest in computational science. Experience with other data science languages such as R, new machine learning technologies such as deep neural networks, and GPU programming would be an advantage. Other desirable skills (depending on the exact position) include applied mathematics, NMR (especially relaxation) theory, and software engineering skills (including source code management, integrated testing and documentation).

Minimum Qualifications (depending on position)

- A Master's Degree (or Bachelors with significant computational experience) from an accredited institution in Chemistry/Biochemistry/Computational Biology/Computer Science
- PhD preferred
- Software development experience in Python and/or Java
- Experience using standard software engineering tools including source code control (such as Git), integrated development environments (such as NetBeans), project management tools (such as Maven) and test suites (such as Junit).

Other Useful Qualifications

- Coursework and/or experience in NMR spectroscopy (especially in NMR relaxation analysis).
- Course work or experience in numerical methods.
- Course work or experience in data mining and statistics
- Experience with GPU programming
- Experience with GUI development