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Date: 21-10-2025

National Supercomputing Mission (NSM) Platform for Genomics and Drug Discovery:

Development of a fast, flexible, high performance computing framework to accelerate NGS omics data analysis

Massively Parallel Sequencing or Next Generation Sequencing (NGS) has taken the scientific community by storm. After commercial availability of the technology from last decade onwards, even modest sized laboratories and institutions all over the world can effectively produce petabytes of data in weeks. This revolution in data generation technology warrants an array of statistical and computational advancement to translate information into knowledge. The stumbling blocks in translating the large volume of data (information) to biologically relevant inferences (knowledge) range from (a) information storage, retrieval of the raw data as-is generated from the sequencing machine - (b) large-scale fast computation and processing that is essential for the data to be useable by the general scientific community – (c) sophisticated analysis that is required in transforming the enormous information to knowledge.

The objective of this project was to make available an easy and extremely flexible supercomputing analysis framework, preferably web-based, to the basic scientist. This would enable them to exercise their choice of programs sequentially in a seamless fashion to process the raw sequence data in accordance with their need and choice. It will also provide the research with a wide array of tools for sophisticated data-analysis. The project is in a stage where we now require a specialist who can work with large scale genetic data and has familiarity with data analysis and handling programs.

We are looking for motivated and bright individuals interested in exploring short-term career opportunities in this innovative multi-organization initiative in National Supercomputing Mission (NSM) at NIBMG in the positions mentioned below:

Senior Software Engineer	1	48000/-	(1) MTech/ M.C.A/ M.Sc. in Computer Science (2) Minimum 3 years of experience of working in large engineering/statistical / bigdata / genomics projects, (3) Experience in management of computational laboratory (4) Demonstrated knowledge of computer programming in C, C++ language. (5) Strong Unix skills.	(1) Experience in parallel programming. (2) Experience in software development. (3) Some domain knowledge in genetics and genomics (3) Published scientific papers/whitepaper in reputed journals.	(1) Development of fast analysis tools for genomics applications (2) Report writing
Software Engineer Tier - I	1	35000/-	(1) MTech /M.C. A/MSc in Computer Science / Statistics/ Bioinformatics/Biophysics/Bioengineering; (2) Minimum 2 years of experience in analyzing terabyte-scale datasets. (3) Experience in next generation sequence (NGS) data analysis, (4) Strong UNIX scripting knowledge	(1) Experience in whole genome/targeted sequencing, RNA-Seq, and genotyping array (2) Experience in python programming (3) Some domain knowledge of genetics and genomics (4) Published scientific papers in reputed journals.	(1) Development of fast and flexible analysis pipelines for NGS datasets.
Bioinformatics Engineer Tier - I	3	25000/-	(1) MSc/MTech/B. Tech in Bioinformatics/Bioengineering/Biophysics; (2) Experience in web-development skills (html, CSS, PHP, JS); (3) Knowledge in UNIX	(1) Experience in R (2) Experience in database development	(1) Data analysis. (2) Report writing

1. All these positions are contractual. The appointment will be initially given up to **31-12-2025**, which is extendable depending upon performance, requirement of the project and availability of funds.
2. Interested candidates need to send an e-mail with a copy of detailed CV to ab1@nibmg.ac.in with a **subject line "Application for the post of (Name of Post)"**.
3. The last date of application is **28-10-2025 (up to 5PM)**. Please visit **www.nibmg.ac.in** for further information.
4. Only the shortlisted candidates will be called for an interview. The interview will be held only in ON-LINE mode.
5. All Educational, Professional and Technical qualifications should be from a recognized Board/University. Fulfillment of essential qualifications and experience does not automatically entitle a candidate to be shortlisted or called for Interview.
6. Canvassing in any form or bringing influence will lead to disqualification of the candidate. The decision of NIBMG in all matters relating to eligibility, acceptance or rejection of application, mode of selection, and conduct of interviews will be final and binding on the candidates. In exceptionally meritorious cases, the eligibility requirements may be relaxed by competent authority.

Associate Director