JOB DESCRIPTION

JOB TITLE: Bioinformatics Engineer I  
JOB CODE:  
GRADE:  
FLSA STATUS:  
DEPARTMENT: Center for Cancer Computational Biology, Biostatistics and Computational Biology  
Please send resume to: cccb@jimmy.harvard.edu

EFFECTIVE/UPDATE DATE:

GENERAL SUMMARY:

The Bioinformatics Engineer I (BEI) will be for developing web-based tools for the analysis of genomic data and information building on established bioinformatics software application. Working collaboratively with the different functional groups within the Center for Cancer Computational Biology, including the scientific and technical staff, the BEI will gather user and technical requirements, define functional specifications, implement data analysis methods, and design and implement data and analysis presentation tools. The position requires proficiency in programming using Java/C++ and related web-development tools such as JavaScript/JQuery. Experience with a wide range of existing bioinformatics databases, statistical programming tools and modern data analysis paradigms is preferred. Familiarity with biostatistics, molecular biology, and human genetics are desirable. Excellent interpersonal and communication skills are essential, as are the abilities to work both independently and collaboratively in a deadline-driven environment.

PRIMARY DUTIES AND RESPONSIBILITIES: (List 5-8 items)
- Continued development and maintenance of the existing software application codebase and its extension to a web-based architecture, including:
  o Gathering user and technical requirements.
  o Defining functional specifications.
  o Designing user reports and interfaces.
  o Developing implementation timelines and milestones.
  o Monitoring software performance.
- Working with internal project members and the existing user community and advisors in defining the use cases and project requirements, through:
  o Communicate with research scientists to understand and obtain data analysis specifications and user interaction needs.
  o Help design data analysis methods that integrate with and expand upon an existing code base.
  o Work independently and as a team member to implement analytical methods and developing the appropriate software tools.
- Evaluating existing and emerging technologies to help select the most suitable tools for the tasks at hand.
- Writing technical documentation and tutorials.
- Assisting with tutorials and public presentations of the software and tools developed.

SUPERVISORY RESPONSIBILITIES: *(include number of direct reports)*

MINIMUM JOB QUALIFICATIONS: *(Education, certifications, years of experience)*

Requires a minimum of 0-2 years of relevant experience. Bachelor degree required, MS or PhD in bioinformatics, computer science, and/or a related field preferred.

KNOWLEDGE, SKILLS, AND ABILITIES REQUIRED:

- Proficient in programming using Java 6/C++, statistical programming, web-development, and the ability to prototype software solutions for data analysis.
- Excellent communication skills are essential, including ability to take on a leadership role in a matrix structure
- Knowledge of standard concepts, practices, and procedures of software development
- Knowledgeable and proficient with genomic technologies and their applications, including the analysis of genomic data.
- Knowledgeable with a wide range of biological databases and resources
- Ability to work in fast-paced, agile development environment
- Excellent problem-solving, organizational, and people skills.
- Experience with high-performance computing desirable

PATIENT CONTACT: *(Please indicate yes or no. If yes, specify what age population served)*

WORKING CONDITIONS: *(include physical efforts when necessary)*

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