

**Programmer and Data Analyst**  
Institute for Genomic Biology  
University of Illinois at Urbana-Champaign

**JOB DESCRIPTION**

The appointed person will work as a programmer on a project funded by the Simons Foundation Life Sciences Program (2013-16), titled “Molecular Roots of the Social Brain”.

The position will be housed in the “Gene Networks for Neural & Developmental Plasticity” theme of the IGB, and the person will be directly supervised by faculty members Saurabh Sinha (Computer Science) and Jian Ma (Bioengineering). Job responsibilities include development of software and analysis tools, and collaborating with other members of the project team to test and use these tools for analyzing biological data sets.

The project seeks to determine whether social behavior arises, in part, from a “dynamic genome” that is transcriptionally responsive to the social environment; and, if so, whether key brain molecular modules of social responsiveness are deeply conserved in evolution. This position is a 12-month, 100% time academic professional appointment with regular University benefits.

**SPECIFIC DUTIES AND RESPONSIBILITIES**

Developing and implementing analysis tools based on ideas developed in the project. The analysis will involve genomics data sets obtained from technologies including but not limited to RNA-seq, ChIP-seq, and genome sequence data. The analytic goals will include reconstruction of gene regulatory networks from the above-mentioned data types, and comparison of such networks across different species. Analysis tools will in general be integrative in nature, i.e., analyze multiple data types simultaneously.

Building software incorporating and integrating various analysis tools, including those developed in-house and those available in the public domain.

Application of software to analysis of data generated in-house as well as those from the public domain.

Collaborating with other participants of the project in developing and testing programs.

Documentation of software developed.

Helping other participants of the project in manuscript writing, including textual and graphic descriptions of results of analyses.

**MINIMUM QUALIFICATIONS**

BS in Computer Science or a related field. Proficiency in C++ or Java, as well as a scripting language such as Perl or Python. Experience with the Linux operating system and developing software for this environment.

**PREFERRED QUALIFICATIONS**

Advanced Degree (MS) in Computer Science or a related field. Experience with R programming. Prior experience with genomics data types.

**APPLICATION PROCEDURES**

Salary will be commensurate with training and experience. The proposed starting date is negotiable after the close date. Please create your candidate profile at <https://jobs.illinois.edu> and upload your letter of interest (including email address), resume and contact information for two professional letters of reference by December 19, 2014. The resume should clearly outline major programming projects undertaken. Applicants may be interviewed before the closing date; however, no hiring decision will be made until after that date. All requested information must be submitted for your application to be considered. For further information regarding the application procedures, you may contact Kim Johnson, [kljohns@illinois.edu](mailto:kljohns@illinois.edu).

Illinois is an equal opportunity employer and all qualified applicants will receive consideration for employment without regard to race, religion, color, national origin, sex, age, status as a protected veteran, or status as a qualified individual with a disability. Illinois welcomes individuals with diverse backgrounds, experiences, and ideas who embrace and value diversity and inclusivity ([www.inclusiveillinois.illinois.edu](http://www.inclusiveillinois.illinois.edu)).