Bioinformatics Analyst

Carl R. Woese Institute for Genomic Biology

University of Illinois at Urbana-Champaign

Description: Develop software and analysis tools to explore new questions in microbial/viral evolution and ecology. Effort in this position will be split 50:50 between the Brooke and IGOH theme at the Carl R. Woese Institute for Genomic Biology.

Major Duties and Responsibilities:
- Extend development of tools to identify and analyze large microbial and viral genomes
- Develop high-throughput analysis of SNP frequencies and linkage to viral infection in microbial genomes
- Assess patterns of natural variation in structured microbial/viral populations and communities
- Develop pipelines for the analysis of viral and microbial genetic and structural variation using data from long read sequencing platforms
- Develop tools for analyzing viral and host RNA sequence data from single cell sequencing
- Work with experimentalists to generate computational approaches to address key research questions in the lab
- Aid in the development of visualization tools and databases to communicate results to clinicians and collaborators.

Education:

Required: Ph.D in Biology, Computational Biology or Bioinformatics.

Experience:

Required: Recent experience working with raw data from Illumin, PacBio, and 10X Genomic Platforms, as well as computational tools. Demonstrated experience with coding and pipeline development and flexibility in using and developing new computational tools. Experience with database management.

Preferred: Experience with sequence analysis of viruses and other microbes

Training, Licenses or Certifications:

Required: First author publication in respected biological sciences journal.

Knowledge Requirements:

Required: Excellent oral and written communication abilities. Expertise in Perl, MySQL, R, Python, Linux/Unix command environment, Windows command environment, JMP pro, compute cluster environments, Genologics Clarity LIMS,

Cleversafe environment, and NGS bioinformatics tools (e.g. samtools, Bowtie2, Tophat, Star, Hisat2, Salmon, Cufflinks, Stringtie, Rsem, EdgeR, etc).

Salary will be commensurate with experience and qualifications. This position is a 12-month, 100% time academic professional appointment with regular University benefits. The proposed starting date is negotiable after the close date.
Please create your candidate profile at http://jobs.illinois.edu and upload your letter of interest (including email address), resume and contact information for three professional letters of reference by August 15, 2017. 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 Jacinda King, jkking@illinois.edu.

The University of Illinois conducts criminal background checks on all job candidates upon acceptance of a contingent offer.

The University of Illinois is an Equal Opportunity, Affirmative Action employer. Minorities, women, veterans and individuals with disabilities are encouraged to apply. For more information, visit http://go.illinois.edu/EEO. To learn more about the University's commitment to diversity, please visit http://www.inclusiveillinois.illinois.edu