Department of Biostatistics
Postdoctoral Fellowship
Position # P00001

The Department of Biostatistics has a 40+ year history in the Virginia Commonwealth University (VCU) School of Medicine, and is committed to excellence in both biostatistical research and graduate education. The department currently has 20 faculty members, 28 full-time students (M.S. and Ph.D.), and 6 professional staff. The department offers both M.S. and Ph.D. degree programs in Biostatistics, including a concentration in Genomic Biostatistics and a M.S. in Clinical Research in Biostatistics. Faculty members in the department maintain an active methodological research portfolio in spatial epidemiology, Bayesian methods, clinical trials, categorical and longitudinal data analysis, survival analysis, computational genomics, etc. In addition, the faculty, staff, and students collaborate actively with clinical investigators on the VCU/Medical College of Virginia Campus (which includes the Schools of Medicine, Dentistry, Pharmacy, Nursing, and Allied Health) in a wide variety of biomedical research projects. Located in Richmond, Virginia, VCU has established relationships with the Virginia Department of Health, as well as other local and regional health departments. In addition to other computational resources at VCU, the department supports its own high-performance computing cluster.

Duties and Responsibilities: A postdoctoral fellow position is available to join our efforts in developing biostatistical methods for the analysis of the 3D structure of the human genome. The main focus of the research will be to understand the molecular basis of human diseases by integrating high-throughput sequencing data (Hi-C, epigenomic, transcriptomic (including single-cell) data). Part of the work will involve the development and application of novel analysis algorithms and software in the field of machine and deep learning, including the application of regression, classification, predictive modeling to molecular and clinical datasets.

Qualifications: Ph.D. in Bioinformatics, Biostatistics, Computer Science, or related field. Working experience in the analysis, integration, and interpretation of different types of high-throughput biological data from sequencing- and array-based technologies; experience with single-cell genomics is considered a plus. Demonstrated experience with the application of supervised and unsupervised machine learning methods to biomedical data; experience with deep learning methods and frameworks (e.g., TensorFlow) is considered a plus. Proficiency in programming, data analysis and data visualization using R/Bioconductor, familiarity with Linux command line and high-performance computing environments, version control with Git, is required. Experience with at least one of Python/Jupyter, Matlab, Perl, C, Java, SQL is considered a plus. Knowledge and experience with software engineering best practices such as version control, code review, unit testing, continuous integration. Must demonstrate strong personal initiative and the ability to work effectively as a part of a team. A track record of publications in relevant peer-reviewed journals. Fluent in English (oral and written).


Virginia Commonwealth University is an urban, research intensive institution with a diverse university community and a commitment to multicultural opportunities. VCU is an equal opportunity/affirmative action employer. Women, minorities and persons with disabilities are encouraged to apply.