Biostatistician II
Department of Biostatistics and Bioinformatics

Occupational Summary

Under the guidance of the CTSI Biostatistics Core management team in the Department of Biostatistics and Bioinformatics, perform intermediate-level statistical analysis and programming for a broad range of medical research projects. Collaborate closely with a cross-functional project team, physicians, lab scientists, and graduate students with regard to statistical aspects of each project.

Work primarily with collaborators at the Duke Global Health Institute (DGHI), which has more than 80 faculty members from across the university and health system. DGHI’s research mission is to reduce health disparities locally and globally with research areas including, but not limited to, malaria, maternal and child health, and global mental health. Potential collaborators, some of whom are based overseas, include epidemiologists, economists, psychologists, engineers, physicians, lab scientists, and graduate students. Research projects at DGHI include both observational and experimental studies, with the cluster randomized design the most commonly used experimental design. Most projects involve primary data collection and take place in a range of countries around the world. These projects, therefore, provide a unique opportunity to develop a diverse portfolio of skills and to gain expertise in numerous areas of research. As such, this position is ideal for a motivated and enthusiastic individual who is flexible and pragmatic in their approach to scientific research.

Responsibilities

Collaboration, communication, leadership, and project management

- Collaborate effectively with programmers, statisticians (both junior and senior), medical personnel, methodologists, and representatives within Duke and the broader research community under the guidance of a supervising biostatistician/methodologist.
- Contribute constructively to project discussions in team meetings.
- Demonstrate excellent written and oral proficiency in the English language.
- Develop leadership and communication skills and share them with others.
- Serve as a resource for other statisticians.
- Describe statistical methods and results to fellow biostatisticians/methodologists as well as to broader audiences with less statistical expertise such as research faculty and staff.
- Adhere to the standard operating procedures (SOPs) of the functional department as they apply to documentation and validation of research methodology.
- Manage project responsibilities with decreasing levels of supervision or regular support.
- Take initiative to complete project-specific responsibilities with minimal supervision.
- Demonstrate ability to multi-task and meet deadlines.
• Build documentation and organizational skills to effectively return to a project or manuscript after long intervals and in such a way that facilitates an easy transition when another methodologist joins the project.

Statistical analysis planning, generation, and interpretation
• Perform intermediate-level statistical analysis at all phases of a research project, from protocol development and study design through final analysis and reporting of results, with guidance from a faculty or supervising biostatistician/methodologist.
• Evaluate research studies and recommend statistical procedures, including, but not limited to, hypothesis tests, regression models and multivariate analysis to analyze the data.
• Contribute meaningfully to discussions of analyses and identify next steps for analyses.
• Prepare statistical analysis plans under the guidance of faculty or supervising biostatistician.
• Prepare comprehensive statistical reports to communicate findings with investigators.
• Prepare statistical components of presentations, abstracts, study protocols, and manuscripts.
• Learn new statistical methods as needed, and apply new skills to future projects.
• Perform intermediate and advanced statistical analyses, including but not limited to generating descriptive and test statistics, and performing high-level statistical modelling.
• Check results for accuracy and consistency.

Programming and data documentation
• Program and develop analysis datasets using SAS or R; combine multiple disparate raw data sets, execute standard cleaning and quality control procedures, and derive analytic variables as required.
• Demonstrate good programming practices through proper documentation, commenting, and readability.
• Perform complex programming using advanced options in SAS procedures and macros, or R functions with increasing efficiency.
• Participate actively in the statistical team responsible for designing and validating analysis data sets, programs, and statistical output products (tables, listings, figures).
• Perform appropriate and adequate code checks to ensure accuracy of results.

Education
Work requires a minimum of a Master's degree in (bio) statistics or related field and no relevant experience, or a bachelor’s degree in (bio) statistics or related field and 2 years relevant experience, or an equivalent combination or relevant education and/or work experience. Master’s degree preferred. Training in research methods that are complementary to biostatistics (e.g., epidemiology, health services, economics, psychology, etc.) preferred.

Experience
Required experience includes prior contribution to analysis of research projects, thorough experience with SAS or R and demonstrated excellence in both written and oral communication.
Desirable experience includes experience in global health or related fields of research, with research methods that are complementary to biostatistics, and with primary data collection. In addition, experience with the Stata programming language, with survival, longitudinal, categorical, and observational data analysis, and generalized linear models is desired.

If interested in this position, please apply online on the Duke HR website using the following link:
https://sjobs.brassring.com/TGnewUI/Search/Home/Home?partnerid=25017&siteid=5172#jobDetails=1320437_5172

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