Working Title: Applications Programmer/Analyst Senior

Sal Range: $70,000 – $90,000 commensurate with skills and experience

FLSA: Exempt

Effort: 100% (FULL TIME)

Hours: 40 Hours

Shift: M-F, days

How to Apply

All candidates must apply via the University of Michigan career portal by **August 1, 2019**:

http://careers.umich.edu/job_detail/175513/app_programmeranalyst_seniorintermediate

All applicants must submit a cover letter and resume as a single document to be considered for this position. Be sure to address why you are interested in the position and tell us about your skills and related experience.

This position may be under filled at at the Intermediate classification depending on the qualifications of the selected candidate.

Applicants may be asked to complete a technical skills assessment as part of the screening and/or interviewing process.

The Institute for Social Research at the University of Michigan seeks to recruit and retain a diverse workforce as a reflection of our commitment to serve the diverse people of Michigan, to maintain the excellence of the university, and to ground our research in varied disciplines, perspectives, and ways of knowing and learning.

Job Summary

The Health and Retirement Study (HRS) is a multidisciplinary research program housed within the Survey Research Center (SRC) at the Institute for Social Research (ISR). The HRS is a large, longitudinal data collection and distribution project focusing on the health, wealth, work, and retirement patterns of the U.S. population over age 50.

This position has responsibility to program, develop and maintain databases and systems designed to support HRS data collection and dissemination efforts. It will require working actively with faculty investigators, senior staff, and project staff. The selected candidate will assist with the programming, design, coding, debugging and documentation of HRS data processing applications and utilities. Other aspects of the position include assisting with sample management, identifying and resolving data anomalies, and writing programs in SAS and other software applications to clean, edit, and restructure HRS data products in preparation for dissemination.This position will entail working with Blaise (a data collection software platform) and writing programs to extract and restructure data. This position may also be involved in the active maintenance and enhancement of existing SQL servers and troubleshooting network, hardware or software problems. Overall, this position is responsible for improving work

processes and product quality through innovative programming and data management approaches.

The ideal candidate will be self-motivated and highly dependable, with a positive attitude, and will possess the ability to solve novel problems and seek assistance when needed. They will have the ability to learn new skills, including new software and other technical tools; exemplary interpersonal and communication skills; demonstrated ability to manage time and multiple priorities in a busy environment; ability to take direction from more than one person and able to work effectively as a team member. Discretion with handling confidential data is required.

Responsibilities

40% SAS Programming
- Design, write, test and document SAS programs for data obtained from various modes of data collection (e.g. paper, CAPI/CATI, web) and at various units of analysis; Generate queries and reports to conduct investigations into data irregularities and work to resolve them
- Design and program relational databases and their user interfaces
- Analyze complex data processing applications and challenges; Devise and carry out detailed testing plans to validate the resulting datasets, analyses, and reports
- Write SQL scripts to efficiently and accurately process data across multiple project waves and at different units of analysis
- Assist with the development, documentation and quality checking for preload
- Construct complex cross wave metadata variables and impute missing data for public release

20% Applications Programming and Improvement of Processes
- Assist with program design, coding, debugging and documentation for data processing tools and applications
- Develop and execute programs to extract and restructure data from Blaise
- Assist in repairing utilities that malfunction due to changing environments
- Assist in designing and programming interfaces that manage a variety of functions
- Improve work processes and product quality, which may include SQL server administration, maintenance and enhancement and/or troubleshooting network, hardware or software problems

20% Sample Management/Selection
- Assist with the development of sample selection and management for the main data product and ancillary studies
- Assist with the development, testing and/or checking of sample weights

15% Supervision & Training
- Assist with hiring, training, and supervising project staff
- Develop and conduct trainings for complex data issues that affect project staff work

5% Other Activities
- Participate in meetings with faculty and/or liaise with other research units to define research questions and deliverables, determine data reporting requirements, present results, and determine next steps
- Work with other programmers and/or project staff to accomplish project goals

- Respond to questions from the research community and/or external contractors
- Write data descriptions for public release

Required Qualifications
- Knowledge of C++ programming language
- Intermediate SQL skills and familiarity with using SQL within SAS
- Statistical training or experience
- Data management experience for large, complex data collections
- Demonstrated effective spoken and written communication skills
- Excellent technical writing skills for documenting database structure and content
- Strong organizational, analytical and independent problem-solving skills with attention to detail and accuracy
- Excellent interpersonal skills and the ability to contribute and collaborate effectively as a lead member of a highly-functioning and productive team
- Excellent time management skills

<u>Senior</u>

Bachelor's degree, preferably in Computer Science or a related field, and/or equivalent combination of education, certification and experience; six (6) or more years of experience in a professional setting using advanced SAS programming for complex data management and manipulation (preferably using social science data).

<u>Intermediate</u>

Bachelor's degree, preferably in Computer Science or a related field, and/or equivalent combination of education, certification and experience; four (4) or more years of experience in a professional setting using SAS programming for data management and manipulation (preferably using social science survey data).

Desired Qualifications
- SAS Advanced Programmer Certification
- Knowledge of Python, C# and/or VB.NET
- Expertise with Blaise software
- Eight or more years of SAS programming
- Experience with Microsoft Access
- Supervision experience

Supervision Received: General direction is received

Supervision Exercised: Administrative and functional supervision of assigned staff is exercised.