



Job Req ID: 82628

Sr. Business Intelligence Analyst

Senior Business Intelligence Analyst I

Core for Clinical Research Data Acquisition (CCDA)

Supplement Page

Position Overview: This position is responsible for writing and maintaining extract/transform/load routines to get data from institutional data sources for use by clinical researchers. The position is also responsible for creating datasets from extracted “raw” data that support biostatistical analysis.

Describe the position’s roles & interactions: This position will require a significant level of collaboration with the CCDA manager and other members of the CCDA team. This position will:

- Work closely with CCDA research customers to discern their needs and to understand and address changes that arise from end user acceptance testing. A weekly scrum is held with the entire team to review all work. The analyst will use Jira to document and track assignments. Data must be delivered in a secure manner, following all applicable institutional policies and State and Federal regulations for privacy, security, and the conduct of human subject research.
- Partner with each clinical investigator, starting at the time of intake, to assess the customer’s technical and analytic capacity and connect the team to biostatistical expertise where needed to remove data roadblocks and wheel-spinning.
- Provide data-related guidance beyond data extraction, at every project phase (pre- and post-data delivery). Post data delivery, hold data walk-through sessions, connect teams with training materials, and be on call to answer data-specific questions, ensuring that teams feel comfortable with their projected data.

This position will also follow all applicable institutional policies and State and Federal regulations for privacy, security, and the conduct of human subject research.

Describe the specific systems, applications, projects for which the position is responsible:

This position will work with CCDA analysts on extract/transform/load projects which could last in duration from 1 day to several months. The major systems with which the position interfaces are PMAP, Epic Clarity, Epic Caboodle, CaseMix Datamart and other systems ingested into PMAP.



Describe scale/size of area, project and/or system supported (# of users, # of servers, # of machines, # of systems supported, transaction volume, # of schools/areas that use system, # of environments, geography, # of interfaces/integration with other systems, etc.): This position could work with about one hundred different users annually, primarily from the Johns Hopkins School of Medicine, but also from the Johns Hopkins School of Public Health, Nursing, and the Engineering Program at the Homewood Campus. The most complex part of this job is learning about the nuances of the data in large institutional databases, with data for about 7 million patients.

The Institute for Clinical and Translational Research is seeking a **Senior Business Intelligence Analyst** / who is responsible for the creation, implementation, maintenance, performance, production support and documentation of various departmental and enterprise-wide application systems. This includes but is not limited to the installation, modification, and testing of new and/or upgraded applications (packages or home grown), operating systems, file structures, hardware, communication devices, and productivity tools. Applies analysis techniques and procedures to gather and then translate business requirements into functional/technical specifications and designs. Using functional specifications and designs, produces all or part of the deliverables. Maintains databases and application system code.

General Position Summary:

This role is responsible for data analytics and additional support of performance measures, ongoing measurement, data collection, reporting, data visualizations and information dissemination. Responsible for participating in the strategic design and maintenance of business intelligence applications. Identifies, researches, and resolves technical problems. Ensures that the use of business intelligence applications enhances clinical & business decision-making capabilities. Works under the supervision of a Data Trust Analytic Team Leader or other data governance or analytic leadership appropriate for the scope of work. This supervision may be through a matrixed or direct reporting structure.

Job Scope/Complexity:

Ensures that the use of business intelligence applications enhances clinical and/or business decision making capabilities. Contributes to moderately complex to complex aspects of a project. Work is generally independent and collaborative in nature. Engages in data exploration exercises with a variety of complex business intelligence tools, requiring knowledge of relational database structures. Collaborates with other analytic teams and central engineering team as directed.

Job Responsibilities:



The responsibilities listed below are typical examples of the work performed by this position. Not all duties assigned to this position are included, nor is it expected that everyone in this position will be assigned every job responsibility.

- Responsible for data analytics and additional support of performance measures, ongoing measurement, data collection, reporting, data visualizations and information dissemination.
- Responsible for implementing the strategic design and maintenance of business intelligence applications. Identifies, researches, and resolves technical problems.
- Ensures that the use of business intelligence applications enhances business decision making capabilities.
- Engages in data exploration exercises with a variety of complex business intelligence tools, requiring knowledge of relational database structures.
- Serve as a resource on complex technical and business matters.
- Provide a leadership role for the work group through knowledge in the area of specialization.
- Collaborates with other analytic teams and central engineering team as directed.
- Makes appropriate decisions, using available resources, to achieve positive outcomes for patients, visitors, staff, and students in balance with sound business practice.
- Makes recommendations for changes in the current departmental systems and processes and contributes ideas and suggestions for solutions to the current system's problems.
- Responds to urgent, impromptu, and unplanned situations by assessing their level of importance, instituting appropriate action and information appropriate management.
- Communicates decisions to appropriate management.
- Prepares incident/occurrence reports as necessary.
- Prioritizes daily tasks and assignments appropriately.
- Completes mandatory Epic and/or other software or analytic tool training as required.
- Collaborates with other analytic teams as directed.
- Report and follow-up on software problems resulting in delay in workflow.

**Required Education:**

- Requires a minimum of a Bachelor's Degree in related discipline (details in supplement).
- Additional experience may be substituted for education, to the extent permitted by the JHU equivalency formula.

Required Experience:

- Minimum of four years of related experience in a professional environment where the required knowledge base and skills have been utilized, and a minimum of 2 years of data analytics. Additional education may substitute for experience, to the extent permitted by the JHU equivalency formula.

Equivalency Formula: 30 undergraduate degree credits or 18 graduate degree credits = 1 year of experience. For jobs where equivalency is permitted, up to two years of non-related college coursework may be applied towards the total minimum education/experience required for the respective job.

Required Qualifications:

- Bachelor's Degree in mathematics, computer science, physics, information systems, actuarial science or related computational field.
- Highly skilled in developing applications using PL/SQL, JavaScript, and HTML.
- Experience extracting, analyzing, cleaning and transform data.
- Performed data analysis, logical data modeling, created database objects, applying data normalization techniques and implementing data integrity.
- Project responsibilities are involved in designing, implementing, managing and troubleshooting databases and database objects.
- Experience with Tableau, Power BI, or other data visualization tools. Experience with data quality, data profiling, metadata management and reporting. Ability to convey technical methods, approaches and plans to audience of varying degrees of technical understanding including clinical and business stakeholders and technical team.
- Excellent leadership skills with ability to negotiate and work collaboratively; service-oriented with excellent verbal and written communication and organization skills; knowledge of formal project management methodologies, structured software development/system design, and implementation of integrated technologies and processes; comprehensive understanding of



business requirements gathering and analysis; understanding of change control/change management and the implications of technology solutions.

- Must be able to work closely with customers and understand and translate their functional needs into technical requirements. Experience in delivering effective technology solutions in a higher education environment or in the technology supported or enabled delivery of education is required.

Preferred Job Qualifications:

- Knowledge in the assigned application as well as the platform on which it runs.
- Thorough knowledge of healthcare and hospital business operations. Advanced knowledge in medical terminology and clinical informatics.
- Basic command of clinical research methods and epidemiologic principles, including missing-data handling, imputation (and its perils), parametric vs. non-parametric analysis, skewed distributions, implications of continuous vs. categorical data, assessing measurement error, form design, PID validation, CPT data, and ICD9/ICD10 diagnosis categories and handling within Epic.

Knowledge, Skills, & Abilities (KSA's):

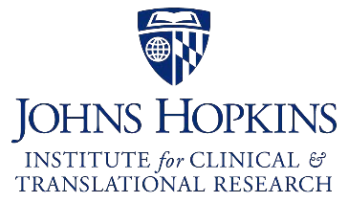
- Knowledge of project and information management.
- Analytical ability required to gather data, perform transformation, perform complex analysis, solve both business and technical problems.
- Advanced knowledge of medical terminology and clinical informatics for positions working with patient-related data or knowledge of business expertise.
- Expert proficiency with business intelligence techniques & tools for the acquisition and transformation of raw data into meaningful and useful information for business and analysis purposes.
- Knowledge of relational databases. Knowledge of EMR data structure for positions working with patient-related data.
- Advanced ability to problem-solve creatively and analyze processes and systems.
- Must possess advanced written and verbal communication skills necessary to gather and exchange data (both internally and externally).



- Ability to independently assess and lead others in which data management and statistical strategies are needed to optimally report outcomes.
- Highly proficient with administrative skills, including advanced use of word processing, database, spreadsheet and desktop publishing software.
- Ability to analyze highly complex data sets.
- Data mining/management, data collection instruction, including ability to show data in a user-friendly format for a variety of audiences.
- Good analytical and advanced problem-solving ability to assess, prioritize and solve highly complex clinical and systems problems.
- High analytical ability to solve complex technical problems.
- Strong problem identification and resolution skills.
- Advanced interpersonal skills to effectively interface with department heads, JHM personnel, vendors, and consultants, to lead projects.
- Ability to balance multiple tasks simultaneously and quickly switch between priorities/tasks.
- Ability to interact with all levels of staff and adapt to a rapidly changing work environment.
- Requires an advanced degree of problem solving in a fast paced, high dynamic and complex environment.
- Advanced critical thinking skills and ability to apply these skills in various situations.
- Ability and willingness to mentor colleagues and share experiences to strengthen the team's success.
- Able to lead the work of a diversified staff in various environments.
- Awareness of the need for timely communication, ability to identify potential barriers and strategies, and ability to synthesize and integrate information.
- Knowledge of and ability to use multiple information systems and software.
- Expert proficiency with word processing, spreadsheet software, database structures, and the internet.

Required Licensure Certification, etc.:

If the candidate does not already have Epic Clarity Certification, then s/he will be expected to attend training sessions at Epic Headquarters in Verona Wisconsin for training leading to Clarity



certification. Certification is required for this job. In order to remain employed in this position, the candidate must pass the certification test in 3 attempts.

This position is remote.

Classified Title: Senior Business Intelligence Analyst

Role/Level/Range: ATP/04/PD

Starting Salary Range: \$59,870 - \$82,250 annually (commensurate with experience)

Employee group: Full Time

Schedule: M-F/8:30am-5:00pm

Exempt Status: Exempt

Location: Telecommute

Department name: SOM ICTR Inst Clin Translational Resrch

Personnel area: School of Medicine

The successful candidate(s) for this position will be subject to a pre-employment background check.

If you are interested in applying for employment with The Johns Hopkins University and require special assistance or accommodation during any part of the pre-employment process, please contact the HR Business Services Office at jhurecruitment@jhu.edu. For TTY users, call via Maryland Relay or dial 711.

Johns Hopkins has mandated COVID-19 and influenza vaccines, as applicable. Exceptions to the COVID and flu vaccine requirements may be provided to individuals for religious beliefs or medical reasons. Requests for an exception must be submitted to the JHU vaccination registry. For additional information, applicants for SOM positions should visit <https://www.hopkinsmedicine.org/coronavirus/covid-19-vaccine/> and all other JHU applicants should visit <https://covidinfo.jhu.edu/health-safety/covid-vaccination-information/>.

The following additional provisions may apply, depending on campus. Your recruiter will advise accordingly.

The pre-employment physical for positions in clinical areas, laboratories, working with research subjects, or involving community contact requires documentation of immune status against Rubella (German



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measles), Rubeola (Measles), Mumps, Varicella (chickenpox), Hepatitis B and documentation of having received the Tdap (Tetanus, diphtheria, pertussis) vaccination. This may include documentation of having two (2) MMR vaccines; two (2) Varicella vaccines; or antibody status to these diseases from laboratory testing. Blood tests for immunities to these diseases are ordinarily included in the pre-employment physical exam except for those employees who provide results of blood tests or immunization documentation from their own health care providers. Any vaccinations required for these diseases will be given at no cost in our Occupational Health office.

Equal Opportunity Employer

Note: Job Postings are updated daily and remain online until filled.

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