POSITION DESCRIPTION

Title: Data Engineer
Location: Remote
Reports To: Sr. Director of Research
Supervises (Direct): n/a
Salary: Commensurate with experience

ABOUT THE ORGANIZATION

The National Resident Matching Program® (NRMP®) is a private, not-for-profit organization established in 1952 to provide a uniform date of appointment to positions in graduate medical education (GME) in the United States. The NRMP is not an application processing service; rather, it provides an impartial venue for matching applicants’ and programs’ preferences for each other consistently. The NRMP conducts the annual Main Residency Match encompassing 40,000 applicants for more than 25,000 positions in core residencies as well as Matches for fellowship positions in 55 subspecialties through its Specialties Matching Service®.

POSITION SUMMARY

NRMP is looking for a data engineer to support the growing technical and analytical needs of the research unit while also partnering with other internal teams to provide strategic, analytical, and technical support for data, analytics, and business intelligence (BI) initiatives. The data engineer will architect, model and refine data pipelines and data requirements for research projects, the data warehouse, and reporting and BI environments. The data engineer will identify and refine data consumption requirements and activities across repeatable and ad-hoc data and analytic initiatives. The data engineer should be curious about new data initiatives and knowledgeable in how to build them. This includes applying their data and/or domain understanding when addressing new data requirements. This role will promote effective data management practices and use them to ensure data quality and integrity. The data engineer will be tasked with working with research staff, key business stakeholders, IT experts and subject-matter experts to plan and deliver optimal reporting, analytics, and BI solutions.

ESSENTIAL DUTIES AND RESPONSIBILITIES

- Proactively partner with IT and research staff to maintain and renovate, as needed, the metadata across the data warehouse, research, reporting, and business intelligence environments to maintain consistency, minimize manual and error-prone processes, and improve productivity and data quality.
- Model and refine data pipelines for data flows in collaboration with research staff, IT, and business stakeholders to ensure data quality; identify inconsistencies, promote efficiency and automation, and identify/resolve non-compliance with data and security requirements.
- Monitor availability of new analytics, reporting, and BI solutions to support the modernization of current data and analytics initiatives and development of new data tools that will enhance the matching experience of NRMP constituents.
- Work to become the in-house expert on existing analytics, reporting, and BI tools and their use; collaborate with IT on the delivery, implementation, maintenance, and support of tools used by the research team.
- Design, develop, and maintain reports and dashboards in analytical, statistical, and BI tools.
- Work to become a data and analytics tool guru displaying expertise in data quality, availability, architecture, knowledge, and consumption.

KEY REQUIREMENTS

A successful candidate will have the expertise and skills described below.

EDUCATION, PREVIOUS EXPERIENCE AND TRAINING

- At least 6 years or more of work experience in data management disciplines including data integration, modeling, optimization, and data quality, and/or other areas directly relevant to data engineering and business intelligence responsibilities and tasks.
- At least 3 years of experience working in cross-functional teams and collaborating with business stakeholders in support of a departmental and/or multi-departmental data management, analytics, and business intelligence initiatives.
- A bachelor's or master's degree in computer science, statistics, applied mathematics, data management, information systems, information science or a related quantitative.
- The ideal candidate will have a combination of IT skills, data governance skills, and analytics skills.
- Familiarity with undergraduate and graduate medical education and the residency selection process highly desirable.

TECHNICAL KNOWLEDGE AND SKILLS

- Strong ability to design, build, and manage data pipelines for data structures encompassing data transformation, data models, schemas, metadata.
- Strong experience with popular database programming languages including SQL and PL/SQL for relational databases.
- Demonstrated experience working with and optimizing existing processes for data integration and data preparation flows.
- Demonstrated success working with large, heterogeneous datasets to extract business value to reduce or even automate parts of the tedious data preparation tasks.
- Demonstrated experience in information taxonomy creation, information visualization, information modeling, and data warehousing techniques.
- Basic experience working with popular data discovery, analytics and BI software tools like Tableau, Qlik, PowerBI, YellowFin and others.
- Basic experience working with data quality, security, and governance teams in moving data pipelines through environments with appropriate data quality, governance and security standards and certification.
- Advanced knowledge of MS Office.
INTERPERSONAL SKILLS AND CHARACTERISTICS

- Be highly creative and collaborative. An ideal candidate would be expected to collaborate with both the research and IT teams to define the business problem, refine the requirements, and design and develop data deliverables accordingly.
- Be a confident, energetic self-starter with strong interpersonal skills.
- Have good judgment, demonstrate initiative, and demonstrate commitment to high standards of ethics, regulatory compliance, customer service, and business integrity.
- Have ability to network and be recognized as a data expert across a variety of business and IT roles.
- Maintain professional image with the ability to form good partner relationships across functions
- Be a strategic, intellectually curious thinker with focus on outcomes.

INTERACTIONS

External:

- Frequent interaction with NRMP IT consultants and partners.
- Periodic interaction with staff of other national health care organizations and researchers in academia.

Internal:

- Frequent interaction with other NRMP staff in monitoring data warehouse, data pipelines, research and reporting environments, generating data tables and graphs, and publishing data reports.

ADA SPECIFICATIONS

(Physical demands that must be met to successfully complete the essential functions of the job)

This position is presently a telework position due to COVID-19 until at least January 2021; however, it is unknown at this time if an in-person workplace will resume. Should in-person work resume, this position is designed to remain remote with potential for intermittent in-person meetings and project work.

This position is primarily sedentary with occasional overnight travel and may require some bending and lifting.

NRMP is an equal opportunity employer and values diversity. We do not discriminate on the basis of race, religion, color, national origin, gender, sexual orientation, age, marital status, veteran status, disability or other protected class status.