

DATA SCIENTIST

TITLE: Data Scientist

REPORTS TO: Director of Data, Research and Accountability

SUPERVISES: N/A

JOB FUNCTION: Develop, program, and maintain data products for internal and external audiences; work with District, School, and program office leadership to identify analytic and reporting needs; program and develop tools to automate data management and analytic tasks; provide training on data analysis and interpretation to internal staff.

DUTIES AND RESPONSIBILITIES:

- Use best practices for replicable research for all work, to include the use of version control systems and documenting source code.
- Data munging and management across internal and external data systems.
- Work with program offices to design program evaluation plans, define the soundest methodological/statistical design to support causal inference, and provide reports for technical and non-technical audiences.
- Design and program packages to standardize ETL and analytical processes.
- Develop processes for the collection and review of business rules from data owners.
- Maintain current knowledge and training in statistical methodology and programming needed to gain efficiency and efficacy in position.
- Support data governance efforts across the District.
- Maintain current understanding of FERPA, HIPPA, and any/all other regulatory requirements regarding the protection of individually identifiable data.
- Lead analysis for internal and external research projects.
- Mentor and support professional development of Jr Data Scientists.
- Implements Software Development Life Cycle methodologies as appropriate.
- Support internal research priorities and pursue independent research opportunities within the district.
- Other duties as assigned.

KNOWLEDGE AND ABILITIES:

KNOWLEDGE OF:

- Reproducible reporting using programs such as LaTeX, Markdown, Sweave, Knitr, or other tools/technologies.
- Advanced experience using Stata, R, Python, Julia, or other languages for data analysis/visualization.
- Tableau, Qlik, D3.js, or other tools/technologies used to develop data visualizations, dashboards, or reporting functionality.
- Git and/or GitHub/GitLab.
- Statistics, machine learning, psychometrics, econometrics, and/or analytical methods needed to fulfill duties and responsibilities.
- Specialized experience in one or more of the following areas: biostatistics, statistics, machine learning, psychometrics, econometrics, latent variable modeling, and/or other advanced data analysis methods.
- Agile SDLC methodology

ABILITY TO:

- Learn federal, state, and local regulatory reporting requirements for school and district accountability, assessment, and special programs.
- Learn new programming languages/techniques, computing skills, software lifecycle development, and analytical methods to develop robust, efficient, and effective workflows.
- Determine best analytical approach for research and program evaluation projects.
- Work collaboratively on research, evaluation, and reporting projects.
- Effectively plan workflows to meet project deadlines and milestones.
- Train others in the District in area of expertise.
- Communicate in writing and verbally to all stakeholder groups.
- Publish original research with other team members.
- Present work at professional conferences with other team members and independently.

EDUCATION AND EXPERIENCE:

- Minimum of a Bachelor's degree in a program that includes a strong quantitative component (Required)
- Master's degree in discipline with strong quantitative analysis component and significant experience with data analysis (Preferred)
- PhD in discipline with strong quantitative analysis component (Preferred)

LICENSES AND OTHER REQUIREMENTS:

Original Date: Sept. 2016