CHIEF DATA SCIENTIST

GOVERNMENT ACCOUNTABILITY OFFICE (GAO)

WASHINGTON, DC

Client

The United States Government Accountability Office (GAO) is an independent, nonpartisan agency that works for Congress for the benefit of the American people. GAO, commonly called the "congressional watchdog", is at the epicenter of government decision-making. The agency investigates how the federal government spends taxpayer dollars; and advises Congress and the heads of executive agencies on ways to make government more efficient, effective, ethical, equitable and responsive. GAO's work leads to laws and acts that improve government operations, saving the government and taxpayers billions of dollars. For more information, please visit www.gao.gov.

Position Summary

This position is located in the Audit Innovation Lab within the Science, Technology Assessment, and Analytics (STAA) team. Consistent with the Senate Report and the testimony of the Comptroller General, GAO is creating a new stand-alone office devoted to supporting the Congress in, among other things, developing advanced analytical techniques and innovating with emerging technologies in support of current and future audits and evaluations. The Chief Data Scientist (CDS), reporting to GAO's Chief Scientist and Managing Director of STAA, is a business strategist who knows the flow of data and information, understands its context, and is aware of how it links across the enterprise with regard to innovating and deriving value within and for the GAO's set of missions. The CDS heads GAO's Audit Innovation Lab, of which the principle part is advanced analytics, decision-making affecting analytics, and oversight of advanced analytics capabilities and infrastructure employed by GAO to achieve its mission and goals. For more information, please visit https://www.gao.gov/technology_and_science.

Responsibilities

- Develop advanced analytical techniques and innovate next generation audit methods and/or tools with emerging technologies in support of current and future audits and evaluations.

- Develop, define, and drive GAO's strategy with regard to the exploration and deployment of advanced analytics and innovative software engineering techniques for improved or novel business outcomes.

- Innovate and expand the agency's advanced analytics and computational research and offerings to support greater analytic capability.

- Partner with the Chief Scientist and Managing Director, STAA, and Chief Statistician to plan, prioritize, fund, and execute on new and innovative analytics-based initiatives and processes based on merit and scientific principles.

- Collaborate with key leadership, such as the Chief Statistician, Managing Director for Applied Research and Methods, Chief Information Officer, Chief Quality Officer, and/or Chief Accountant, among others to set policy and standards regarding the use of advanced analytics and emerging technologies in the organization.

Qualifications

Within the resume, candidates must demonstrate evidence of progressively responsible leadership experience that is directly related to the skills and abilities outlined in the **Professional/Technical Qualifications (PTQs) and Executive Core Qualifications (ECQs) below. Your resume should not exceed 5 pages total.**

Professional/Technical Qualifications (PTQs)

You must submit separate narrative statements that address the PTQs. Each PTQ should not exceed 2 pages in length (or 6 pages total). You should include one or two examples of relevant experience per PTQ. For each example, describe your level of responsibility, scope and complexity of programs managed, program accomplishments, policy initiatives undertaken, and the results of your actions. You should not enter "Refer to Resume" to describe your experiences. Applications directing the reviewer to search within the application or to see the resume are considered incomplete and may not receive further consideration. *The 3 PTQs you must address are:*

1. **Experience applying data science; advanced data analytics, including structured, unstructured, or relational; data mining; and machine learning techniques.**

2. **Experience participating in and driving client engagements focused on big data and advanced business analytics in diverse domains such as product development, marketing research, public policy, optimization, and risk management; communicating results; and educating others through reports and presentations.**

3. **Experience evaluating options for data management infrastructure and tools, design comparison tests, prototype as needed, to steer build/buy decisions.**

Other desirable qualifications for this position include experience:

1. Building complex data extraction, transformation, and loading, including Extract, Transform, and Load into structured databases, data warehouses, and data processing systems.

2. Developing, testing, and applying optimized algorithms and statistical models for discovering new intelligence data, minimizing false positives, and recommending courses of action for internal and external stakeholders.

3. Performing machine learning (ML), natural language (NLP), artificial intelligence (AI), text mining and statistical analysis methods, such as classification, collaborative filtering, association rules, sentiment

analysis, topic modeling, time-series analysis, regression, statistical inference, and validation methods.

Executive Core Qualifications (ECQs)

You must address the ECQs in your resume. Do not address the ECQs in separate narrative statements. Your resume must show evidence of progressively responsible leadership experience that is indicative of senior executive-level management capability and directly related to the ECQs below. Your resume should emphasize your level of responsibility, scope and complexity of programs managed, program accomplishments, policy initiatives undertaken, and the results of your actions. The ECQs you must address are:

1. Leading Change: Describe your experience bringing about strategic change, both within and outside the organization, to meet organizational goals, establishing an organizational vision, and implementing it in a continuously changing environment.

2. Leading People: Describe your experience leading people toward meeting the organization's vision, mission, and goals, providing an inclusive workplace that fosters the development of others, facilitating cooperation and teamwork, and supporting constructive resolution of conflicts.

3. Results Driven: Describe your experience meeting organizational goals and customer expectations, making decisions that produce high-quality results by applying technical knowledge, analyzing problems, and calculating risks.

4. Business Acumen: Describe your experience managing human, financial, and information resources strategically.

5. Building Coalitions: Describe your experience building coalitions internally and with other federal agencies, state and local governments, nonprofit and private sector organizations, foreign governments, or international organizations to achieve common goals.

For information on the competencies associated with each ECQ, please visit Executive Core Qualifications.

Education

You may qualify for this position based on one of the professional occupations below.

General Mathematics and Statistics Series

To qualify for this occupational series, you must possess:

A. Degree: at least a bachelor's degree in a major that is appropriate for the position (e.g., mathematics, statistics, actuarial science, operations research, computer science).

OR

B. Combination of education and experience: courses equivalent to a major that is appropriate for the position (e.g., mathematics, statistics, actuarial science, operations research, computer science) AND additional education or appropriate experience.

Computer Engineering Series

To qualify for this occupational series, you must possess:

A. Degree: Engineering. Lead to a bachelor's degree in a school of engineering with at least one program accredited by ABET.

OR

B. Degree: Engineering. Included differential and integral calculus and courses (more advanced than first-year physics and chemistry) in five of the following seven areas of engineering science or physics: (a) statics, dynamics; (b) strength of materials (stress-strain relationships); (c) fluid mechanics, hydraulics; (d) thermodynamics; (e) electrical fields and circuits; (f) nature and properties of materials (relating particle and aggregate structure to properties); and (g) any other comparable area of fundamental engineering science or physics, such as optics, heat transfer, soil mechanics, or electronics.

OR

C. Professional registration or licensure -- Current registration as an Engineer Intern (EI), Engineer in Training (EIT), or licensure as a Professional Engineer (PE) by any State, the District of Columbia, Guam, or Puerto Rico. Absent other means of qualifying under this standard, those applicants who achieved such registration by means other than written test (e.g., State grandfather or eminence provisions) are eligible only for positions that are within or closely related to the specialty field of their registration. For example, an applicant who attains registration through a State Board's eminence provision as a manufacturing engineer typically would be rated eligible only for manufacturing engineering positions.

OR

D. Written Test -- Evidence of having successfully passed the Fundamentals of Engineering (FE) examination or any other written test required for professional registration by an engineering licensure board in the various States, the District of Columbia, Guam, and Puerto Rico.

OR

E. Specified academic courses -- Successful completion of at least 60 semester hours of courses in the physical, mathematical, and engineering sciences and that included differential and integral calculus and courses (more advanced than first-year physics and chemistry) in five of the following seven areas of engineering science or physics: (a) statics, dynamics; (b) strength of materials (stress-strain relationships); (c) fluid mechanics, hydraulics; (d) thermodynamics; (e) electrical fields and circuits; (f) nature and properties of materials (relating particle and aggregate structure to properties); and (g) any other comparable area of fundamental engineering science or physics, such as optics, heat transfer, soil mechanics, or electronics.

OR

F. Related curriculum-- Successful completion of a curriculum leading to a bachelor's degree in a scientific field (e.g., engineering technology, physics, chemistry, architecture, computer science, mathematics, hydrology, or geology) AND at least 1 year of professional engineering experience acquired under professional engineering supervision and guidance.

How to apply:

1. Go to https://www.usajobs.gov/GetJob/ViewDetails/524937100.
2. Click "Apply" to create a USAJOBS account or log into your existing account. Follow the prompts to begin the application process.
3. You will be redirected to the Career Connector website to complete the application process.
4. Click "Submit" to transmit your complete application package to GAO.

Please carefully review the "Required Documents" section and follow all instructions under "How to Apply" to ensure you submit a complete application.

Location: Washington, DC

EEO: The U.S. Government Accountability Office's policy is to provide equal employment opportunity for all regardless of race, religion, color, sex (including pregnancy), national origin, age disability, genetic information, sexual orientation, or gender identity. GAO provides reasonable accommodations to applicants and employees with disabilities.

Other: U.S. Citizenship required. Completion of a satisfactory background investigation required. Financial disclosure may be required.

Compensation: Up to $189,600; eligible for relocation expenses and recruitment incentive.

Deadline: To be considered, you must submit your application via USAJOBS by 11:59 PM (ET), April 1, 2019. Vacancy # is GAO-19-STAA-001

Contact:

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JDG Associates, established in 1973, is a leading provider of executive recruiting services to federal/state/local government, non-profit organizations, trade associations, Fortune 1000 corporations, and a broad array of government contractors.

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