Staff Fellow - Senior Data Engineer

INTRODUCTION: The Center for Devices and Radiological Health (CDRH or Center), as the scientific and regulatory component of the U.S. Food and Drug Administration (FDA) charged with facilitating and ensuring medical device innovation, safety, and effectiveness, and advancing regulatory science is now accepting applications for a Staff Fellow (Senior Data Engineer) to serve in the Office of Clinical Evidence and Analysis (OCEA or Office). OCEA oversees the application of modern artificial intelligence tools, including machine learning and deep learning methodologies, that can be evaluated, piloted, and implemented at scale by CDRH to help the Center evaluate clinical evidence and other device-related data to more efficiently conduct regulatory review activities in support of the Center's mission.

POSITION SUMMARY: OCEA is seeking a Staff Fellow (Senior Data Engineer) to develop and build the infrastructure and tools for exciting new technologies. The Staff Fellow will design and build Amazon Web Services (AWS) applications and data pipeline services that work at scale to support new data analytics products and also enable development workflows. This will require the automated deployment of microservices and data tools for high-throughput stream processing. Additionally, the Staff Fellow will build basic Application Programming Interfaces (APIs), front-ends, and tools that interact with cutting-edge hardware and other web services. Further, the Staff Fellow will serve as the technical authority providing design of infrastructure and data pipeline development for moving data to the frontend, interaction with the backend, and deployment in a production environment.

DUTIES/ RESPONSIBILITIES: As a Staff Fellow (Senior Data Engineer), the selected candidate will:
- Serve as the Architect of AWS Linux data systems connecting user-facing products to back-end infrastructure
- Write code to connect scheduled jobs, microservices, and web applications to data pipelines
- Work with a team of developers in machine learning, distributed microservices, and full stack systems
- Utilize the latest open source technologies for designing data-intensive applications
- Perform unit / system tests, and conduct rigorous code reviews
- Provide minimum AWS credentials for developers / services to perform their jobs with highest security standards
- Understand product requirements, engage with team members and customers to define solutions, and estimate the scope of work required.
- Collaborate with, mentor, and influence members within your team and across other teams.
- Deliver solutions that can keep up with a rapidly evolving product in a timely fashion.

PROFESSIONAL EXPERIENCE/ KEY REQUIREMENTS: To qualify for this position, you must demonstrate in your resume the necessary experience for this position, which is equivalent to the following:
- Application development: Python, Javascript, (Node, Vue), familiarity with Scala and Functional Programming
- Streaming big data technologies: Kafka / Kinesis, Spark Storage frameworks: SQL, NoSQL
- Microservice and infrastructure automation: AWS Cloud Formation, Terraform, Docker, Kubernetes, AirFlow
- Cloud data pipelines: S3, Lambda, Step Functions, EMR, RedShift / Snowflake
- Additional: strong skills in Continuous Integration and Testing frameworks

BASIC QUALIFICATIONS: This position is multidisciplinary, and applicants will be required to meet the specific qualification requirements of the following applicable occupational series: Computer Science Series, 1550; Electrical Engineering Series, 0850; Bioengineering and Biomedical Engineering Series, 0858; General Engineering Series,

[0801; General Mathematics and Statistics Series, 1501; Statistics Series, 1530](#); [Mathematical Statistics Series, 1529](#); or other related or a quantitative science field.

ADDITIONAL QUALIFICATIONS: At a minimum, the candidate must possess a doctoral-level degree from an accredited institution of higher learning, to include: Ph.D., M.D., D.V.M., D.D.S., D.M.D., Sc.D., or other research doctoral-degree widely recognized in U.S. academe as equivalent to a Ph.D. Candidates must have professional experience and stature in their area of expertise commensurate with the duties of the scientific position being filled.

FOREIGN EDUCATION: If you are using education completed in foreign colleges or universities to meet the qualification requirements, you must show that the education credentials have been evaluated by a private organization that specializes in interpretation of foreign education programs and such education has been deemed equivalent to that gained in an accredited U.S. education program; or full credit has been given for the courses at a U.S. accredited college or university. *For further information, visit the [U.S. Department of Education website for Foreign Education Evaluation](#).*

CONDITIONS OF EMPLOYMENT:
- One-year probationary period may be required.
- This position is for a **two (2) year** appointment and will be filled through [FDA's Staff Fellowship Program](#)
- Background and/or Security investigation required.
- Applicants who are U.S. Citizens and born male, on (or after) 12/31/1959, must be registered with the [Selective Service System](#) OR have an approved exemption.
- This position may require financial disclosure reporting and will be subject to FDA's prohibited financial interest regulation. If you are hired, you may be required to divest of certain financial interests. You are advised to seek additional information on this requirement from the hiring official before accepting any job offers. For additional information, please visit the [FDA Ethics and Integrity Office](#)

SALARY: Salary is commensurate with education and experience.

LOCATION: Silver Spring, Maryland, FDA Headquarters, [White Oak Campus](#)

How to Apply: Submit an electronic resume or curriculum vitae, cover letter containing describing why you are uniquely qualified for this position, and a copy of unofficial transcripts all in **one** document (**Adobe PDF**) to CDRHRecruitment@fda.hhs.gov, with Job Reference code *"2022-OCEA-DCEA II-SR Data Engineer-001"* in the subject line. Applications will be accepted through **July 8, 2022.**

Additional Announcement Information

COVID-19: Due to COVID-19, the Agency is currently in an expanded telework posture. If selected, you may be expected to temporarily telework, even if your home is located outside the local commuting area. Once employees are permitted to return to the office, you will be expected to report to the duty station listed on this announcement within 45 days. At that time, you may be eligible to request to continue to telework one or more days a pay period depending upon the terms of the agency's telework policy. As required by Executive Order 14043, Federal executive branch employees are required to be fully vaccinated against COVID-19 regardless of the employee's duty location or work arrangement (e.g., telework, remote work, etc.), subject to such exceptions as required by law. If selected, you will be required to be vaccinated against COVID-19 and will receive instructions on how to provide documentation.

1. **Security and Background Requirements**: All candidates must meet applicable security requirements which include a background check and a minimum of 3 out of the past 5 years' residency status in the US. If not previously completed, a background security investigation will be required for all appointees. Appointment will be subject to the applicant's successful completion of a background security investigation and favorable adjudication. Failure to successfully meet these requirements may be grounds for appropriate personnel action. In addition, if hired, a background security reinvestigation or supplemental investigation may be required at a later time. Applicants are also advised that all information concerning qualifications is subject to investigation. False representation may be grounds for non-consideration, non-selection, or appropriate disciplinary action.

2. **Benefits:** The Federal Government offers a comprehensive benefits package. Explore the major benefits offered to most Federal employees at https://www.usa.gov/benefits-for-federal-employees

3. Travel, transportation and relocation expenses **will not** be paid.

HHS/FDA is an equal opportunity and affirmative action employer. All qualified applicants will receive consideration for employment without regard to race, color, religion, sex, sexual orientation, gender identity, national origin, disability, or protected veteran status.

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