



# OFFICE OF THE STATE AUDITOR

## SOLUTIONS ARCHITECT BOSTON

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**Posting Number 2021-14**

**SALARY RANGE: (CSA128) Grade 14A: \$73,831.12 -- \$110,746.20/yr. (Commensurate with experience)**

### **GENERAL STATEMENT OF DUTIES**

The Solutions Architect understands business goals, processes and solutions architecture and designs, develops and supports data and technology solutions. The Solutions Architect engages in projects that develop software applications and data systems, pipelines and services to address key information and performance needs of the OSA.

Please note that in response to COVID-19, OSA employees have the option of working from home (telecommuting) or working in an assigned office. At some point in the near future, employees will be expected to work 40% of their work week in office, with 60% telecommuting. Also, as a requirement of employment, all OSA employees are required to provide proof of COVID-19 vaccination, or provide a negative COVID-19 PCR test weekly in order to access offices or worksites.

### **SUPERVISION RECEIVED**

Receives general supervision and direction from the Director of Data Analytics.

### **SUPERVISION EXERCISED**

Provides technical supervision over 1-3 contract personnel on an as needed or project basis.

### **DUTIES AND RESPONSIBILITIES**

- Work with stakeholders to determine business needs/problems and design and develop solutions or strategies to meet technical and business requirements.
- Work on a wide variety of development, integration, analysis, and test/evaluation efforts.
- Create and maintain optimal data pipeline architecture.
- Transform data into a format that can be easily analyzed by developing, maintaining, and testing infrastructures for data collection and transformation.
- Identify, design, and implement internal process improvements: automating manual processes, optimizing data delivery, re-designing infrastructure for greater scalability, etc.
- Create data tools for analytics team members that assist them in building and optimizing our business processes.
- Support our software developers and data analysts on data initiatives and ensure optimal data delivery architecture is consistent throughout ongoing projects.
- Consult with application development team to integrate or fit new and existing software applications within OSA data systems and applications.
- Configure/integrate APIs to connect to data sources/applications.
- Design and develop applications, systems or processes to compile and normalize third-party structured and unstructured data.
- Develop ETL procedures to migrate/load data.
- Produce technical documentation of solutions, systems and architecture.
- Document and maintain source code using change control software.
- Responsible for prototyping application, data integration and information business solutions.



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- Test and evaluate Commercial-Off-The-Shelf (COTS) products against customer requirements and use cases.
  - Develop and manage effective collaborative relationships with other departments, groups, peers, and subordinates.
  - Ensure compliance with HIPAA and other Federal and State required data policies/best practices.
  - Recommend emerging scalable and reusable technical solutions to automate processes and increase operational efficiency.
  - Assist other staff as needed in providing support for audit teams by preparing data for analyses and translating the results for non-technical staff members.
    - Design, develop and construct algorithms for use in the OSA's data analytic tool set.
    - Understand the data structure and metadata available in all OSA technical environments.
    - Develop SQL queries to extract, manipulate, and calculate information.
    - Assist team members in analysis of given data and draw correct inferences, in keeping the objectives of the analysis in mind.
    - Write reports (including ad-hoc) requested by the Auditor, Deputies, and Directors, etc.
    - Translate complex quantitative analysis for non-technical staff members.
    - Interface with audit teams and external organizations assisting in the analysis of high profile audits.

### MINIMUM QUALIFICATIONS

The successful candidate will possess and/or demonstrate:

- A Bachelor's Degree in Computer Science, Engineering, Management Information Systems.
- Experience working with data analytics, programming, and database management practices.
- Knowledge of data analyst and business intelligence analyst practices.
- Hands-on experience with SQL database design.
- Advanced working SQL knowledge and experience working with relational databases, query authoring (SQL) as well as working familiarity with a variety of databases and unstructured datasets.
- Demonstrated experience working with SQL Server Management Studio and SQL Server Integration Services.
- Advanced SQL and PL/SQL programming and Relational and Analytical Database concepts.
- Ability to work creatively and analytically to solve business problems.
- Experience performing root cause analysis on internal and external data and processes to answer specific business questions and identify opportunities for improvement.
- Good understanding of agile principles and development methodologies.
- Experience working with enterprise reporting and data warehouse solutions.
- Technical experience in data integration (ETL, API).
- Ability to work independently and effectively in a team environment with cross-functional teams.
- Ability to multitask, prioritize and deliver results on time under pressure.
- Highly organized with attention to detail.



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- Flexibility to meet continuously changing priorities and challenges.
- Experience working within IT procedures.
- Adept in computer languages with good technical knowhow.
- Excellent written and verbal communication skills.
- Can convey complex and technical business issues to diverse audience.
- Ability to read, write, and comprehend the English language.

### **PREFERRED QUALIFICATIONS**

Demonstrated experience in the following areas will also be important considerations:

- One to three years of job experience in a similar role.
- Background in application and solution development.
- Experienced data pipeline builder and data wrangler who can optimize data systems and build them from the ground up.
- Experience developing data and infrastructure architecture strategies and roadmaps.
- System integration experience, including interface design and familiarity with web-oriented architecture techniques.
- Demonstrated ability to build effective relationships across diverse internal and external groups.
- Ability to use analytical techniques such as critical and conceptual thinking to objectively analyze situations.
- Demonstrated ability to devise solutions that maximize efficiency.
- Proficient in the following programming languages: Python, C#, JavaScript, ASP, ASP.NET (Telerik controls), R
- Proficient in SQL including dynamic querying and generation of stored procedures and functions.
- Proficient in process automation, especially shell scripting.
- Knowledge of database administration including data definitions, security roles, and system tables.
- Understanding of Active Directory and networking concepts.
- Understanding of AJAX and web-design concepts.
- Proven project management skills.
- Knowledge of governmental auditing.
- Experience supporting and executing change management activities.
- Solid customer service and relationship management skills.
- Demonstrated time management and organizational skills with exceptional attention to detail.
- Experience delivering presentations to senior-level execs and technical audiences.

### ***No Phone Calls Please:***

To apply, please send a copy of your resume to: [OSA.applications@sao.state.ma.us](mailto:OSA.applications@sao.state.ma.us) when you apply, we invite you to submit a copy of the [OSA's Voluntary Self Identification Form](#), with your resume.



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