Class Codes
ASSOCIATE IT SOLUTIONS ARCHITECT   3830
IT SOLUTIONS ARCHITECT   3823

DEFINITION

An IT Solutions Architect designs, develops, and oversees IT architectural cloud, security, or data solutions for an IT Branch in alignment with business goals, technical requirements, and District strategic plans. An Associate IT Solutions Architect assists an IT Solutions Architect with major activities related to the design and development of IT architectural solutions.

TYPICAL DUTIES

Designs and develops architectural solutions that incorporate business goals with new or existing technology for an IT Branch and ensures solutions align with District strategic plans.

Documents and maintains reference architectures, roadmaps, and best practices for IT solutions.

Documents and designs the District's cyber security architecture, systems, and services and aligns the architecture to industry best practices and standards.

Collaborates with other IT Solutions Architects and IT teams to implement and integrate solutions that are compatible with the District's IT enterprise.

Proposes and develops plans to integrate on-premise and cloud-based solutions.

Identifies and synthesizes the components and subcomponents required for a solution's success.

Incorporates cloud technology architecture in data system architecture.

Architects data lakes to expand the type and amount of data captured and ensure a repository of historical data is maintained and accessible through proper data governance practices.

Coordinates and leads various architectural planning committees or centers of excellence, such as cloud center of excellence, data architecture task force, or cyber security review board.

Serves as a District expert and advisor regarding the architecture of their area of focus and related emerging technologies such as cloud computing, Artificial Intelligence, automation, and machine learning.

Architects cloud infrastructure solutions for storage, computing, and application hosting.

Defines and enforces standards, practices, and guidelines for solution development and integration such as proper data governance practices, application standards shared between systems, and security compliance practices to ensure District IT enterprise-wide compatibility.

Assesses existing architectures to recommend improvements and bridge gaps within an architecture and between systems.

Identifies and mitigates risks and potential impacts associated with new architectural solutions and improvements to existing architectures.

May lead or supervise a team of technical personnel.

Performs related duties as assigned.

DISTINGUISHING CHARACTERISTICS AMONG RELATED CLASSES

An IT Solutions Architect serves as an IT architectural cloud, security, or data solutions expert, designs architectural IT solutions for business goals, and ensures the solutions are consistent with industry standards, the District strategic plan, and are properly integrated across the District IT enterprise.

An Associate IT Solutions Architect assists an IT Solutions Architect with the major activities related to the solutions architecture for an IT Branch.

A Senior Administrator is responsible for all areas of their IT Branch and advises the Chief Information Officer on the technical strategy pertaining to these systems and services for the division.

The Chief Information Security Officer is responsible for the development of a strategic, comprehensive, and adaptable information security program designed to project the District's information assets and provides the overarching strategy for District information security.

SUPERVISION

An IT Solutions Architect receives administrative direction from a Senior Administrator or the Chief Information Security Officer and may provide administrative direction to Associate IT Solutions Architects and lower-level technical staff. An Associate IT Solutions Architect receives administrative direction from an IT Solutions Architect or higher-level administrator and provides general direction to lower-level technical staff.

CLASS QUALIFICATIONS

Knowledge of:

  Applicable education code laws, regulations, and guidelines related to cyber security
  Limitations of information technology hardware, software and services
  Interdependencies of technologies
  Project management methodologies
  Internet applications such as e-mail, internet, netnews, etc.
  Security controls for networking devices, operating systems, application, web, and cloud-based
    solutions

Ability to:

  Manage multiple large projects simultaneously
  Develop, plan, and implement short and long-range goals
  Integrate and collaborate successfully with peers
  Formulate and express ideas clearly and effectively in writing and orally
  Set priorities and successfully complete tasks in a timely manner
  Analyze and interpret materials and problems involving rules, procedures, documentation, and
    related matters
  Maintain effective relationships with District personnel and representatives of manufacturers
    and other organizations
  Motivate and lead employees
  Transform business requirements into IT systems architecture

ENTRANCE QUALIFICATIONS

Education:

  Graduation from a recognized college or university with a bachelor's degree, preferably in
  electrical engineering, mathematics, computer science, data science, cybersecurity, or a
  related field. Qualifying experience in addition to that listed below may be substituted for the
  required education on a year-for-year basis provided that graduation from high school or
  evidence of equivalent educational proficiency is met. An advanced degree in systems
  management, engineering, or computer science is preferable.

<u>Experience</u>:

Data Emphasis:

Associate IT Solutions Architect: Three years of experience in an enterprise-wide environment in data and analytics platform architecture, data integration, data modeling, and data technology platform and management.

IT Solutions Architect: Five years of experience in an enterprise-wide environment in data and analytics platform architecture, data integration, data modeling, and data technology platform and management.

Or

Cloud Infrastructure Emphasis:

Associate IT Solutions Architect: Three years of experience in an enterprise-wide environment designing, implementing, and supporting cloud infrastructure solutions. The aforementioned experience must have included cloud platform architecture, management, maintenance, and governance.

IT Solutions Architect: Five years of experience in an enterprise-wide environment designing, implementing, and supporting cloud infrastructure solutions. The aforementioned experience must have included cloud platform architecture, management, maintenance, and governance.

Or

Cybersecurity Emphasis:

Associate IT Solutions Architect: Three years of designing, engineering, implementing, and managing secure, enterprise-wide network infrastructure and implementing technologies on various platforms. The aforementioned experience must include experience in leading security requirement analysis, design, implementation, and support with third-party compliance objectives such as FERPA, HIPAA, CJIS, etc.

IT Solutions Architect: Five years of experience designing, engineering, implementing, and maintaining a secure, enterprise-wide network infrastructure and implementing technologies on various platforms. The aforementioned experience must include experience in leading security requirement analysis, design, implementation, and support with third-party compliance objectives such as FERPA, HIPPA, CJIS, etc.

<u>Special</u>:

A valid driver's license to legally operate a motor vehicle in the State of California and the use of a motor vehicle, or the ability to utilize an alternative method of transportation.

Data Emphasis:

Associate IT Solutions Architect: the following certification or it's equivalent or higher is required:
AWS Certified Solutions Architect – Associate

IT Solutions Architect: one of the following certifications or their equivalent or higher is required:
Microsoft Certified Power Platform Solution Architect Expert

AWS Certified Solutions Architect – Professional

Cloud Infrastructure Emphasis:

Associate IT Solutions Architect: one of the following certifications or their equivalent or higher is required:
AWS Certified Solutions Architect – Associate
Google Associate Cloud Architect

IT Solutions Architect: one of the following certifications or their equivalent or higher is required:
AWS Certified Solution Architect - Professional
Google Professional Cloud Architect
MS Certified Azure Solutions Architect Expert

Cybersecurity Emphasis:

Associate IT Solutions Architect: One of the following certifications or their equivalent or higher is required:
SANS GIAC Defensible Security Architect (GDSA)
AWS Certified Security- Specialty

Or

A Cisco CCNP Enterprise and Cisco CCNP Security are both required

IT Solutions Architect: one of the following certifications or their equivalent or higher is required:
Certified Information Systems Security Professional (CISSP)
SANS GIAC Information Security Professional (GISP)
Cisco CCIE Security
Cisco CCIE Enterprise Infrastructure

A Microsoft Certified Cybersecurity Architect, MS Certified Cybersecurity Architect Expert, or AWS Certified Security – Specialty certification is preferable.

Project Management Professional (PMP), IT Infrastructure Library (ITIL), Open Group TOGAF Certified Enterprise Architect Practitioner, or equivalent certifications are preferable.

This class description is not a complete statement of essential functions, responsibilities, or requirements. Entrance requirements are representative of the minimum level of knowledge, skill, and /or abilities. To the extent permitted by law, management retains the discretion to add or change typical duties of a position at any time, as long as such addition or change is reasonably related to existing duties.

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