

DUTY STATEMENT

CDCR INSTITUTION OR DEPARTMENT California Correctional Health Care Services		POSITION NUMBER (Agency – Unit – Class – Serial) 042-038-1415-XXX				
UNIT NAME AND CITY LOCATED Information Technology Services Division, Application Innovation Services, Healthcare Services – Elk Grove, CA		CLASSIFICATION TITLE Information Technology Specialist III				
		WORKING TITLE Senior Application Developer				
		COI Yes ☒ No ☐	WORK WEEK GROUP E	CBID M01	TENURE P	TIME BASE FT
SCHEDULE (Telework may be available): 8:00 AM to 4:30 PM. (Approximate only for FLSA exempt classifications)		SPECIFIC LOCATION ASSIGNED TO 8260 Longleaf Drive, Elk Grove, CA 95758				
INCUMBENT (If known)		EFFECTIVE DATE				
California Department of Corrections and Rehabilitation (CDCR) and California Correctional Health Care Services (CCHCS) are committed to transforming the correctional landscape to create safer, more professional, and more fulfilling environments for our employees, the incarcerated population, and those supervised in our communities. Through systemwide improvements grounded in proven and emerging practices, we aim to strengthen rehabilitation, enhance workplace satisfaction, and support successful reentry into the community through our institutions, parole, and community partnerships. Our shared mission is to promote safety, wellness, and human dignity while fostering positive change for all those who live and work within our institutions and communities. CDCR and CCHCS are committed to building an inclusive respectful workplace. We are determined to attract and hire candidates from all communities and empower employees from a variety of backgrounds, perspectives, and personal experiences. We are proud to foster inclusion and drive collaborative efforts at all levels of the Department. Across our organization, our programs work cooperatively to provide the highest level of health care possible to a diverse correctional population. We encourage creativity and ingenuity while treating others fairly, honestly, and with respect, all of which are critical to the success of the CDCR and CCHCS mission.						
PRIMARY DOMAIN:		Software Engineering				
Under the general direction of the IT Manager II, the IT Specialist III works independently as the technical expert on the most complex software systems and projects. You will serve as the principal technical architect and subject matter expert for our mission critical Artificial Intelligence (AI) system. You'll operate with high autonomy, leading the end-to-end orchestration of complex artificial intelligence services. The incumbent must maintain confidentiality of information acquired while performing job duties, demonstrate ethical behavior and work cooperatively with others. Travel and/or after-hours support of California Correctional Health Care Services (CCHCS) software applications and systems is required.						
% of time performing duties	Indicate the duties and responsibilities assigned to the position and the percentage of time spent on each. Group related tasks under the same percentage with the highest percentage first. <i>(Use addition sheet if necessary)</i>					
ESSENTIAL FUNCTIONS						
40%	As an Architect to implement AI-driven enterprise solutions in compliance with departmental programming and security standards. Lead analysis, development, testing, and deployment for automation, intelligent data transformation, predictive analytics, and advanced reporting. Provide strategic leadership in AI by assessing emerging technologies, defining approaches for machine learning integration, data storage, and governance, and presenting solution strategies to executive leadership. Design and develop advanced ETL and AI pipelines to integrate and process data across multiple systems, applying machine learning for data quality, anomaly detection, and scalability. Deliver technical support for AI-enabled applications, including configuration,					

30% 25% 5%	maintenance, and troubleshooting of web, database, and ML-based systems. Collaborate with internal teams, vendors, and consultants on custom AI-powered solutions. Optimize database design and integration with AI augmentation, ensuring secure and ethical practices for data conversion, migration, and compliance with departmental standards. Lead cloud migration initiatives with AI enablement, including SaaS integration and deployment of AI services. Develop strategies for transitioning legacy systems to cloud-native platforms and design, test, and monitor AI-ready solutions. Design and manage AI ecosystems, including model-serving layers, high-dimensional databases, and inference middleware deployed in hybrid-cloud or vendor-managed environments. Collaborate with IT teams and software vendors to establish secure hosting environments in federated data centers and cloud platforms for development, testing, training, production, and disaster recovery. Design and implement secure n-tier architecture such as web, application, database, and Commercial Off-the-Shelf (COTS) components—to support departmental business functions based on system requirements and specifications. Research, install, configure, customize, and test assigned system Provide strategic evaluation and recommendations for AI solutions and related technology investments. Lead specialized IT projects to ensure timely delivery and compliance with standards. Deliver technical training and mentorship on systems analysis, troubleshooting, development, testing, implementation, and operations. Develop comprehensive documentation, including design specifications, gap analyses, capacity planning, and deployment plans. Generate automated system reports on patches, configurations, and performance metrics. Perform other duties as required.
	KNOWLEDGE AND ABILITIES <i>Knowledge of:</i> Information technology governance principles and guidelines to support decision making; complex and mission critical business processes and systems; principles, methods and procedures for designing, developing, optimizing, and integrating systems in accordance with best practices; system specifications design, documentation, and implementation methodologies and techniques. Emerging technologies and their applications to business processes; business or systems process analysis, design, testing, and implementation techniques; techniques for assessing skills and education needs to support training, planning and development; business continuity and technology recovery principles and processes; principles and practices related to the design and implementation of information technology systems; information technology systems and data auditing; the Department's security and risk management policies, requirements, and acceptable level of risk; application and implementation of information systems to meet organizational requirements; project management lifecycle including the state of California project management standards, methodologies, tools, and processes; software quality assurance and quality control principles, methods, tools, and techniques; research and information technology best practice methods and processes to identify current and emerging trends in technology and risk management processes; and State and federal privacy laws, policies, and standards. <i>Ability to:</i> IT governance establishes principles and guidelines that support informed technology decisions. Systems design and integration focus on best practices for developing, optimizing, and implementing complex, mission-critical solutions, including

methodologies for specification and documentation. Emerging technologies are applied to enhance business processes, while process analysis and implementation ensure effective design, testing, and deployment of system workflows. Training and development address skill gaps through structured education programs. Business continuity and recovery planning safeguard operations and enable technology restoration. Security and risk management define departmental policies, acceptable risk thresholds, and auditing standards for IT systems and data. Information systems applications align technology solutions with organizational objectives.

Project management encompasses full lifecycle oversight using California state standards, methodologies, and tools. Quality assurance applies rigorous principles for software validation and control. Research and best practices identify trends in technology and risk management, and compliance ensures adherence to state and federal privacy laws, policies, and standards.

Recognize and incorporate technology trends and industry best practices into organizational strategies. Identify and address training requirements to support effective technology adoption. Interpret audit findings and implement corrective actions to ensure compliance and operational integrity. Apply information assurance principles to maintain confidentiality, integrity, availability, authenticity, and non-repudiation of systems and data.

Plan, manage, and oversee system implementation, updates, and integration activities. Utilize established project management methodologies to govern scope, schedule, cost, quality, resources, communication, risk, and procurement. Monitor and evaluate the effectiveness of change management initiatives. Recommend solutions informed by emerging technologies and recognized best practices.

Promote collaboration through leadership and conflict resolution strategies. Negotiate effectively with stakeholders, suppliers, and sponsors to achieve organizational objectives. Assess and enhance backup and recovery processes to ensure continuity of data, programs, and services.

DESIRABLE QUALIFICATIONS

Knowledge of: Agentic AI & Multi-Agent Design: Proven ability to build autonomous systems where multiple agents collaborate, reason, and use tools. MCP (Model Context Protocol) to securely connect AI models to external data sources, tools, and workflows, RAG & Knowledge Architecture: Expertise in Retrieval-Augmented Generation (RAG), including advanced indexing in vector databases. WinUI framework for building desktop applications. CoPilot studio provides a configurable conversational and agent layer that the desktop application invokes, which in turn orchestrates interactions with Azure OpenAI and other Azure services. GPT-realtime-2.1 for multi modal and speech-to-speech application. GPT-Image-2 for image generation and editing. PowerPlatform connectors to configure the connections made to AI models such as GPT 5.1 and GPT-Image-1-Mini. Azure OpenAI Services to connect large language model (LLM) inference for chat, reasoning, and agent workflows Azure speech services for voice input speech services. Microsoft Foundry for platform unification that allows builds, deployments and management of AI Apps and Agents. Provisioning capacity in Foundry using Provisioned Throughput Units (PTUs). Commercial off-the-shelf (COTS) Solutions Support; Software Development Life Cycle (SDLC); web application security and encryption; the State IT Governance Policies and

Security Standards per the State Administrative Manual; industry web standards, technologies and systems, with specific focus on web design and development; interface design, database design, logical data modeling, database programming, coding standards and best practices, data conversion methodology, Agile methodology, and SCRUM framework.

Ability to: Learn AI Solutions and become productive within a reasonably short duration; implement complex systems using HL7 Messaging standard, networking technologies, Microsoft ASP.NET, MS IIS, MS SSRS, MS SQL Server, MS .Net Framework, C#, Visual Basic, Web Services, MS Visual Studio, MS Windows OS, XAML, JSON, MSIX, RAG API, Terminal Services and PowerShell; communicate in a professional and effective manner with co-workers, vendors, customers, and management utilizing tact and interpersonal skills to establish and maintain effective working relationships in all situations on an on-going basis; set well-defined and realistic personal goals; display a high level of initiative, effort, and commitment towards completing assignments in a timely manner; work with minimal supervision, be motivated to achieve, and demonstrate responsible behavior.

OTHER DOMAINS

IT Project Management:

Knowledge of: Principles and methods for planning or managing the implementation, update or integration of information systems components; System Development Lifecycle including the associated methodologies, tools, and processes; systems life cycle management concepts used to plan, develop, implement, operate, and maintain information systems; principles, methods, and techniques of IT assessment, planning, management, monitoring, and evaluation such as IT baseline assessment, interagency/department dependencies, contingency planning, and disaster recovery; basic Project Management principles; laws, legal codes, court procedures, precedents, legal practices and documents, government regulations, Executive Orders, agency rules, policies, government organization and functions, and the political process used to regulate the implementation of projects; systems life cycle management concepts used to plan, develop, implement, operate, and maintain information systems.

Ability to: Assess situations to determine the importance, urgency and risks to the project and the organization, and make clear decisions which are timely and in the best interests of the organization; set goals and priorities, develop a work schedule, monitor progress towards goals, and track details/data/information/activities; establish and maintain project priorities; positively influence others to achieve results that are in the best interest of the organization; identify and analyze measures or indicators of system performance and determine the actions needed to improve or correct performance, relative to the goals of the system.

SPECIAL REQUIREMENTS OR CONTINUING EDUCATION REQUIREMENT

- CCHCS does not recognize hostages for bargaining purposes. CCHCS and CDCR have a "NO HOSTAGE" policy and all incarcerated patients, visitors, nonemployees, and employees shall be made aware of this.

SPECIAL PHYSICAL CHARACTERISTICS

Persons appointed to this position may be reasonably expected to exert up to 30 pounds of force occasionally and/or a negligible amount of force frequently or constantly to lift, carry, push, pull, or otherwise move objects. Involves sitting most of the time but may involve walking or standing for

brief periods of time. SPECIAL PERSONAL CHARACTERISTICS • Influence change and strengthen the community. Set an example each day through positive and pro-social role modeling, utilizing dynamic security concepts. • Willingness to play a significant role in the collaborative efforts toward rehabilitation and public safety enhancement. • Ability to facilitate conversations as a coach and mentor, engaging in a respectful and understanding manner. • Ability to build trust, improve communication, and assist with the transformation of correctional culture. Where the position requires driving of an automobile, the employee must have a valid State driver's license, a good driving record, and is expected to drive the care safely.		
SUPERVISOR'S STATEMENT: <i>I HAVE DISCUSSED THE DUTIES OF THE POSITION WITH THE EMPLOYEE</i>		
SUPERVISOR'S NAME (Print)	SUPERVISOR'S SIGNATURE	DATE
EMPLOYEE'S STATEMENT: <i>I HAVE DISCUSSED WITH MY SUPERVISOR THE DUTIES OF THE POSITION AND HAVE RECEIVED A COPY OF THE DUTY STATEMENT</i>		
The statements contained in this duty statement reflect general details as necessary to describe the principal functions of this job. It should not be considered an all-inclusive listing of work requirements. Individuals may perform other duties as assigned, including work in other functional areas to cover absence of relief, to equalize peak work periods or otherwise balance the workload.		
EMPLOYEE'S NAME (Print)	EMPLOYEE'S SIGNATURE	DATE