

# MONTEREY COUNTY OFFICE OF EDUCATION

## **DIRECTOR OF SOFTWARE DEVELOPMENT TECHNOLOGY & INFORMATION SERVICES (TIS)**

**CLASSIFICATION:** Classified Management

**SALARY LEVEL:** 80

**WORK YEAR:** 225

### **DEFINITION:**

Under the direction of the Chief Technology and Operations Officer, the Director of Software Development is responsible for the integrity, reliability, and support of major software systems, databases, and state data reporting requirements, as well as the development of in-house applications and system integrations designed to streamline and automate internal processes. This position will lead and manage the activities of the Software Development department, as well as, strategic planning and operations support of all system and application services including financial, human resources, payroll, and student information systems. This position shall also lead, and manage, the implementation and maintenance of Escape financial software for the Monterey County Office of Education (MCOE) and participating districts; lead efforts to ensure timely and accurate student information reporting on behalf of MCOE and assist with the development and implementation of Information Technology (IT) Governance and quality improvement efforts.

### **SUPERVISOR:**

Chief Technology and Operations Officer

### **POSITION(S) SUPERVISED:**

Classified staff assigned

### **QUALIFICATION REQUIREMENTS:**

To perform a job successfully, an individual must be able to perform each essential duty satisfactorily. The requirements listed in the job description are representative of the knowledge, skills, and/or abilities required. Reasonable accommodations may be made to enable individuals with disabilities to perform the essential functions.

**MAJOR DUTIES AND RESPONSIBILITIES:** The following is a list of duties that is representative of the position that includes but is not limited to:

- Supervises the operations of the Software Development department in support of the overall mission of MCOE and TIS
- Manages the design, implementation, maintenance, and optimization of relational database systems used for a wide variety of information technology service offerings
- Serves as the architect and lead designer of databases based upon logical data models by employing program and business requirements and analysis
- Leads development of custom applications and system integration routines designed to minimize resource requirements and optimize processes
- Manages short and long term system projects and timelines; determines key milestones
- Develops and manages the process for requirements management and ensures strict adherence to this

process by staff

- Assumes full process ownership for student data management systems, ensuring compliance and timely and accurate execution of state mandated reporting
- Manages the software development cycle and provides training and guidance to staff
- Provides leadership and hands-on assistance with data integration technologies such as bulk movement, real-time replication, and federation based upon user requirements
- Serves as the authority on data warehousing, data mining, and the collection, extraction, and analysis of data from disparate system
- Leads efforts to ensure data integrity using established practices such as data encryption, data backup, access control, input validation, and data validation
- Plans, designs, develops and implements data processing goals and objectives, and systems policies and procedures for complex applications such as interactive financial accounting and payroll accounting systems
- Ensures that issues with software functionality are resolved effectively and efficiently through proper testing, troubleshooting, and problem management
- Leads efforts to produce detailed accounting of users and security access to system software
- Develops and implements procedures to ensure that data is efficient for reporting and retrieval
- Manages the installation, upgrading and maintenance of all databases at the central data center and remote school sites
- Manages IT Service Continuity for systems and applications including Escape software
- Develops and maintains department budget, exercising initiative in developing resources to meet division objectives and providing budgeting input to senior management
- Supervises, trains, and evaluates information specialists and systems analyst positions
- Participates in the development of strategic and tactical plans
- Maintains awareness of and ensures compliance with relevant State and Federal laws and regulations, Monterey County Office of Education Board Policies, Superintendent Policies and Administrative Regulations

### **OTHER DUTIES:**

Performs other job-related duties as required

### **PHYSICAL AND MENTAL CHARACTERISTICS:**

Physical, mental and emotional stamina to perform the duties and responsibilities of the position; manual dexterity sufficient to write, use the telephone, business machines; vision sufficient to read printed materials; hearing sufficient to conduct in person and telephone conversations; speaking ability in an understandable voice with sufficient volume to be heard in normal conversational distance, on the telephone and addressing groups; physical agility to push/pull, squat, twist, turn, bend, stoop and to reach overhead; physical mobility sufficient to move about the work environment (office, district, school site-to-site), drive an automobile, and respond to emergency situations; physical strength sufficient to lift 40 pounds; physical stamina sufficient to sit for prolonged periods of time; mental acuity to collect and interpret data, evaluate, reason, define problems, establish facts, draw valid conclusions, make valid judgments and decisions.

### **REQUIRED QUALIFICATIONS:**

#### **Education and Experience:**

- Bachelor's degree from an accredited institution in computer science, information engineering or

other related discipline, or equivalent demonstrated competencies

- Minimum of five (5) years of relevant work experience
- Minimum of three (3) years of managerial/supervisory experience in management, development, and maintenance of software systems

### **Knowledge of:**

- Data integration techniques including replication, change data capture, and ETL
- Data warehousing, data integration, data mining, data visualization, and reporting tools and techniques
- Data integrity technologies (encryption, backup, access, validation, analysis) and constraints (entity, referential, and domain)
- Data processing including the summarization, aggregation, validation, tabulation, and analysis
- The architecture, design, and application of relational databases including logical data modeling and entity relationship (ER) diagramming
- MS-SQL installation, configuration, administration and optimization
- Soliciting and documenting user requirements, utilizing stakeholder interviews, use case analysis, prototyping, and acceptance testing
- Visual basic and other software development languages, systems, best practices, and terminology
- Software development and support in a Microsoft .NET environment
- Web-based software development using HTML, XML, and Java Script
- The principles of designing software solutions including input, output, storage, and processing requirements
- Policies, procedures, functions and general principles of the software development life cycle (SDLC) such as waterfall, spiral, agile, and rapid application development (RAD)
- Client/Server and N-Tier application development and deployment
- Student information, finance, payroll, accounts payable, and similar systems
- Project management in a development environment
- Agile project methodologies including Scrum and Kanban
- Management of a technical team, providing vision and developing strategic goals
- Commitment to customer and team-oriented management
- Information Technology Infrastructure Library (ITIL) v3, COBIT, and Six Sigma for quality improvement

### **Skills and Abilities:**

- Expertly analyze data and situations, reason logically and creatively identify problems, draw valid conclusions and develop effective solutions
- Perform research, compile data, and prepare recommendations
- Drive software development based upon user requirements
- Establish and maintain effective relationships with those contacted in the course of work
- Communicate with users to effectively resolve problems with applications
- Explain technical concepts in non-technical terms to individuals and groups
- Communicate in English, clearly and concisely, both orally and in writing
- Demonstrate good interpersonal skills to work with students, teachers, administrators, supervisors, co-workers and vendors
- Independently compose correspondence, reports, and articles describing complex procedures or issues
- Prepare and deliver effective oral presentations

- Adapt to changing technologies and learn functionality of new equipment, systems, and protocols
- Ensure that staff is managed effectively including providing professional growth plans, handling discipline and other employee related issues, and serving as a coach/mentor
- Prioritize and schedule department work to meet schedules and timelines
- Interpret and explain policies and procedures
- Implement IT Governance best practices
- Represent the department at meetings
- Prepare and manage departmental budget
- Maintain trouble ticketing database

**Desirable Qualifications:**

- Master's degree in a relevant field
- Experience with educational sector software systems, especially Escape software
- Experience with state reporting requirements such as CASEMIS and CALPADS
- Advanced certification and/or training in database and software development
- Bilingual/Biliterate in Spanish

**Licenses and Certifications:**

- California Driver's License with evidence of insurability