Stanford University Department of Public Safety
Position Description

Position Title: Database and Web Application Administrator (Database
                          Administrator 2)
Status: Exempt, 100% FTE; 3 year fixed term;
Job Code: 4762
Grade: K
Reports to: A Lieutenant or a civilian manager of equivalent rank

The Database and Web Application Administrator will be responsible for the design, implementation and maintenance of database and web applications for the Department of Public Safety (DPS).

The Database and Web Application Developer will maintain database and web systems currently deployed; additionally, the incumbent will perform needs-assessment studies of departmental processes in order to develop systems that will improve existing processes, provide data storage and access, maintain data security and integrity, and reduce redundancy.   In addition to being proficient in database and web administration, the incumbent will be required to become familiar with applicable law enforcement industry requirements and standards, and will be responsible for maintaining/developing database and/or web applications that are in compliance with these standards and best practices.

Work assignments will be performed in collaboration with various divisions and department personnel, requiring tact, discretion, good listening and customer service skills. The position requires both creative and technical ability, familiarity with law enforcement data security constraints, and the ability to exercise a high degree of independent judgment. Strong communication and interpersonal skills are necessary. When conducting needs-assessment research, the incumbent must ask questions which will ensure that the users' needs are fully understood and ultimately address those needs in light of overall security and confidentiality concerns. The incumbent must be able to determine the scope of projects, handle multiple projects simultaneously, and provide project plans, timelines with milestones, reporting progress to stakeholders on a regular basis. Attention to detail, strong customer service, high level of computer proficiency, and a high level of energy, enthusiasm and flexibility along with an understanding of the department's Core Values and R.O.O.T.S. philosophies will be key characteristics of the successful incumbent.

All benefits-eligible members of the Stanford Department of Public Safety are considered essential (or required) university personnel for purposes of managing emergencies and critical incidents impacting significant portions of the campus. As such, all benefits-eligible DPS personnel are expected to respond to campus during a major emergency. In conjunction with other DPS personnel, the Database and Web Application Administrator will be responsible for implementing ICS (Incident Command

Structure) during large scale and/or high profile special events and critical incidents. Additionally, this position will play a key role in the special events management efforts. These responsibilities will require the incumbent to work nights and weekends, sometimes with little advance notice. This position is subject to shift work.

Core Duties:

Database Administration and Development (60%)
- Review the physical and logical design of current data storage systems and conduct needs-assessment research with department stakeholders to determine where improvements should be made. This review includes but is not limited to a review of the department police records storage systems, daily activities tracking system, special events database and equipment inventory systems.
- Install, configure and support relational database management systems (RDBMS) and related software to resolve highly complex/unique issues for Public Safety. Implement solutions for optimal database structures, security and backup/recovery.
- Design, develop and maintain highly available databases, developing project plans that translate department needs into technical requirements. Execute complete database solutions from evaluation to implementation. This may include researching and implementing "off the shelf" database applications or the development of unique in-house applications which should be protected by an appropriate authorization constraint.
- Develop and enforce database standards and/or new development protocols that promote department and university standards and ensure that all applications are fully compliant with applicable regulations and best practices.
- Work closely with Senior System Computer/Server Administrator to maintain the integrity of department databases through multiple access schemes; facilitate sharing of common data by overseeing proper key and index management. Monitor database backups, install, upgrade and maintain database software; restore and/or recover data as necessary.
- Create data flow and data lifecycle documentation; develop and maintain internal database documentation describing requirements, design specifications, implementation and ongoing changes in applicable procedures for use by end users as well as other network personnel.
- Employ industry standard tools and techniques in analysis and design, including business, object, data and process modeling.

Web Design and Development (30%)
- Prepare and oversee long-term planning for the Public Safety website development, including standards, security, and guidelines based on department goals and input from stakeholders. Review the structure and content of the current department websites; ensure that the website platform will meet department needs and can handle high traffic volume.

- Implement, and manage web-based applications, databases, and interfaces from initial design through development, test and deployment. Provide technical expertise in front-end and back-end web development. Support web infrastructure by providing end-user support, applications maintenance, back-end development and internal management.
- Ensure new pages are user friendly and easily navigable by end users, supporting the clear, comprehensive and accurate presentation of the Stanford Department of Public Safety's online presence on the Internet.
- Create and maintain effective end user experiences which may include design, web content, and mobile computing experience.
- Configure, analyze, and report statistics regarding all relevant website metrics; recommend improvements to site that will increase effectiveness and efficiency. Evaluate and incorporate as appropriate content and design improvements and third-party features and services for functionality, accessibility, security, and maintainability; adapt/improve search engine optimization. Maintain security of data collected via web applications in accordance with applicable state and federal regulations.
- Work closely with Senior System Computer/Server Administrator to provide technical support to department personnel for database and web applications.
- Identify and support writing of collateral media that drive traffic to the web site.
- Monitor other university and municipal police agencies sites in order to keep current with web site development, design issues, and web security protection.

Other Duties (10%)
- Provide basic computer administration support during Network Administrator's short-term vacancies (sick days, time-off, training time, etc…).
- Provide logistics and other support during all home football games, major events and campus emergency situations; weekend work and shift work will be required on short notice, including all home football games each year.
- Monitor a police radio during one's assigned shift and be alert to incidents which would require the issuance of a "Timely Warning" or "Immediate Notification." Draft alert notices and determine, based upon the circumstances, if Command level approval is required before sending the message using the university's AlertSU system.

Minimum Knowledge, Skills and Abilities Required:
- Demonstrated experience in the support requirements of large database applications and systems including performance analysis and tuning of high volume transaction systems. Extensive knowledge and experience in the design and implementation of complex database architecture.
- Experience with project management, systems analysis and design for secure web-based and database application development.
- Ability to design and manage relational databases; knowledge of database software including SQL Server and Oracle, graphical and event driven user

interfaces, object oriented development using Visual Basic, and web based server and client technologies.

- Experience in the development of front-end applications on a Windows Platform using Microsoft Access, Visual Basic, CONM, or similar tools.
- Familiarity with standards such as LDAP, HTTP, iCAL, RSS, ATOM.
- Experience with common enterprise technologies and techniques including caching, locking, fail over and encryption.
- Familiarity with web applications and server protocols; demonstrated success record developing and managing websites.
- Ability to design and implement complex web services; strong working knowledge of different website platforms including Amazon Web Services, gov cloud, etc.
- Demonstrated significant experience in developing websites and web applications using open source tools, languages, libraries and current standards-compliant code.
- Strong working knowledge of web development using HTML, CSS, Drupal, WordPress, ASP, ASP.NET, VB.NET, XML, XSL, XSLT, Java Script and AJAX, PHP.
- Familiarity with browser devices and platform differences and idiosyncrasies, and ability to develop workarounds to accommodate specialized user/client needs to address compatibility issues.
- Experience prototyping web applications, designing and critiquing web user interfaces, with a focus on security, usability, and standards.
- Ability to develop a vision for future computing needs and to develop an implementation plan to meet those needs.
- Ability to work well independently or as a team member.
- Ability to maintain knowledge of new and current technology and trends.
- Extensive experience with database and web security protocols.
- Ability to work under pressure, take initiative and prioritize tasks; good time-management, problem solving, and customer service skills.
- Ability to maintain and exercise sound judgment and discretion in handling confidential information and to keep sensitive information strictly confidential and secure at all times
- Desire to learn, accept and promote the Department's Core Values and R.O.O.T.S. philosophies.
- Knowledge of University policies and procedures preferred including applicable security and accessibility standards/policies.

Minimum Education and Experience Required:
A bachelor's degree and five years of relevant experience or a combination of education and relevant experience.

Physical Requirements:
- Constantly perform desk-based computer tasks, grasp lightly/fine manipulation.

- Frequently sitting.
- Occasionally stand/walk, use a telephone.
- rarely writing by hand, lift/carry/push/pull objects that weigh up to 10 pounds.
- Strong visual acuity.
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  - Consistent with its obligations under the law, the University will provide reasonable accommodation to any employee with a disability who requires accommodation to perform the essential functions of his or her job.

Working Conditions:
- Extended and weekend hours.
- Must be available for on-call work.

Work Standards:
- Interpersonal skills: demonstrates the ability to work well with Stanford colleagues and clients and with external organizations.
- Promote a Culture of Safety: Demonstrates commitment to personal responsibility and value for safety; communicates safety concerns; uses and promotes safe behaviors based on training and lessons learned.
- Subject to and expected to comply with all applicable University and department policies and procedures, including but not limited to the personnel policies and other policies found in the University's Administrative Guide and the Department of Public Safety General Orders.

Special Requirements:
- Applicants must pass a complete background including a search of local, state, and national files for criminal history.
- Must be able and willing to respond to and work large-scale events as well as unplanned critical incidents, sometimes with little advance notice.

Selection Process:
- Application
- Interview with Department and University Personnel
- Personal History Questionnaire (PHQ)
- Background Investigation
- Personal Interview with the Director of Public Safety

* Stanford Department of Public Safety does not pay the candidate for travel expenses associated with testing / interviewing, unless otherwise indicated by the department at the time of call for interview.

*Stanford University is an equal opportunity employer and does not discriminate on the basis of race, color, religion, sex, age, national origin, veteran status, physical or mental disability, or sexual orientation.