Stanford Center for Sleep Sciences IT Position Job Description

The Stanford Center for Sleep Sciences and Medicine is looking for an IT expert with a background in both sleep and healthcare to assist with research and hospital projects. The position is dynamic and requires flexibility and the ability to learn new programming languages. Must be organized and able to work on multiple parallel projects in a team environment and have excellent time management skills.

Projects will include:

Epic Integration
Stanford recently transitioned to Epic, an electronic medical records system. The Sleep Disorders Clinic is working to ensure our clinical data is imported to Epic in an optimal fashion to assist in the improvement of the interface between our software and Epic to ensure the test results are seamlessly transferred to the electronic medical record.

COMET
The Comparative Outcomes Management with Electronic Data Technology (COMET) project is a multi-center informatics and comparative effectiveness research project investigating positive airway pressure (PAP) versus dental appliance therapy for the treatment of obstructive sleep apnea. One of the goals is to develop an electronic network that will enable the transfer of information from various hospitals and medical centers, with diverse participant populations encompassing different disease types and severities, acquiring data from various equipment and test types across several patient visits. The COMET team needs a local person to perform the following tasks:

- Administer server environments (Windows 2008 R2, MS SQL Server 2008 R2, SharePoint Foundation, and virtualized Ubuntu Linux)
- Responsible for backups, security updates, security monitoring, software installation and configuration, software updates, and hardware modifications
- Assist with transfer and preparation of clinical data files (i.e. polysomnographies, MRIs, and vascular ultrasounds)
- Assist with general programming to couple various tool sets with the goal of creating an informatics research platform for use by multiple sites

Programming web-based questionnaires
The Alliance Sleep Questionnaire (ASQ) is a comprehensive and innovative electronic sleep disorders questionnaire consisting of novel questions and validated measures that uses branching logic. The ASQ was created the Academic Alliance for Sleep Research (AASR) Clinical Database Taskforce comprised of multidisciplinary experts and runs on a LAMP platform with Linux for an operating system, MySQL for a database server, Apache for a web server, and PHP for a programming language to generate web pages. The Symfony framework was used for developing the core of the survey application and the jQuery JavaScript library was used for web interactivity.

Tasks will include installing patches or upgrades to the software, setting up the database behind a secure firewall, and working with local IT and Epic teams to facilitate generating and exporting summary reports to the clinicians and the electronic medical record.
**Database migration and management**

The Sleep Center has a number of research databases in MS Access that need to be migrated to a new database and data entry system (MS SQL). This project will require meeting with the current users to assess the existing needs and provide suggestions for ways to better utilize available technology to improve our system. Specifically, would like to enhance the data-entry system, validation measures, audit trail, data-entry system, and missing data codes.

**Preferred experience:**

Bachelor’s degree or equivalent

Knowledge of sleep and healthcare

General programming with abilities in:

- Epic and Clarity
- HL7
- Interface Engines (e.g. Cloverleaf)
- Server-Side and Client-Side JavaScript
- MS SQL
- MS Access
- PHPJavaScript
- VBScript
- Visual Basics for Applications (VBA)
- C
- C#
- Adobe CS5

Basic LAMP knowledge

At least one higher-level scripting language (e.g. Tcl, Perl, Python)

At least one statistics software (e.g. MATLAB, SAS, SPSS, R)

**Salary / Benefits:**

This will be a Stanford University position with full benefits. Salary will be dependent on experience. For benefit details, visit [http://benefits.stanford.edu/cgi-bin/overview/benefits_offerings/](http://benefits.stanford.edu/cgi-bin/overview/benefits_offerings/).

Email resume and contact information to eleary@stanford.edu