

Position Description

**HEALTH SCIENCES LIBRARIES AND TECHNOLOGIES (HSLT)**

Division: Health Sciences (90)  
Department: Edward G. Miner Library (0050)

**FUNCTIONAL TITLE:** Application Programmer

**STATUS:** Full time

**CLASSIFICATION TITLE:** Analyst/Programmer, Lead

**DAYS OF EFFORT:** 5

**POSITION CODE:** 1854

**SALARY GRADE:** 055

**POSITION SUMMARY STATEMENT**

Responsible for the ongoing design, development, and operation of Miner Library Online (MLO) (Miner's Web site and interface to more than 25,000 electronic journals, books, and knowledge resources), and database applications for library operations. Develop and modify applications using ColdFusion, MS SQL Server, CGI/Perl, Java, Javascript, CSS, XML, and HTML. Guide (both formally and informally) library staff in the use of Web technology, including advising the library's Senior Leadership Team on standards, best-practices and technological possibilities.

Every member of our team is required to make a personal commitment to service excellence. We expect that you will embrace the **Strong/HSLT Commitment** and make it central in your work life each and every day.

**DUTIES AND RESPONSIBILITIES**

- E1. As lead developer, participate in Miner Library Online design/redesign process. Utilize leadership and persuasion to advise design team on technical possibilities, best practices and timeframes, and overcome dissimilar points of view. (25%)
  - Visualize and prepare prototype design concepts to demonstrate functionality and design aesthetics. (5%)
  - Modify existing components and write new components; utilize frameworks and extensive documentation to ensure code-reusability and rapid troubleshooting. (20%)
- E2. Provide programming for Blackboard Learning Management System Initiatives (25%)
  - Develop Building Blocks
  - Generate reports for various user groups in support of educational programs, hospital and academic
  - Assist in the development of the automation process integrating Student Information System data into Blackboard
  - Develop web-based administrative and user tools
- E3. Monitor and support Miner Library Online (Miner's Web site and interface to more than 25,000 electronic journals, books, and knowledge resources). Serve as primary resource for Web page authors and editors using Dreamweaver and/or Contribute software to keep content easily accessible, up-to-date, and error free. Troubleshoot complex technical problems and restore malfunctioning Web pages and Miner Web applications. Introduce innovative design concepts, demonstrate design aesthetics and functionality, and implement approved design/functionality changes. (15%)

- E4. Collaborate closely with other members of Miner's Information Systems (IS) team. Provide programming/scripting input, as needed, to improve, streamline, support, and maximize functionality and integration of systems and applications, including Blackboard, MS Exchange, SQL, OTRS Helpdesk, and Mediasite webcasting system. Consult with IS staff on best practices, assist with system and desktop administration by writing scripts and/or helping others write scripts. Partner with team members to understand the IT environment, and seek assistance as needed to properly configure systems to support the requirements of projects. (15%)
  
- E5. Develop and support database applications for library operations, including a user-survey tool for continuous improvement of the Web site/library, Miner's time & effort tracking system, library class registration system, and reference librarians' "Ready Reference" database. Prepare and analyze reports on use of the library's resources, especially IT resources, from logs, usage tables, and publisher-supplied usage statistics. Under the guidance of University of Rochester Libraries Director of Information Systems and Applications, develop and improve tools for capturing use and quality measurement data. (10%)
  
- E6. Work in partnership with River Campus Libraries technology teams to to develop, implement, and maintain new technologies, especially a Medical Center front-end for eXtensible Catalog, a suite of open-source applications to provide libraries with an alternative way to reveal their collections to users. (5%)
  
- E7. Maintain superior knowledge of Internet, database, and programming technologies, both software and hardware, by attending seminars, classes, and conferences; visiting relevant Internet sites; reviewing current literature. Utilizing independent judgment, prototypes and pioneering discussions, demonstrate and build interest in the application of new and developing technologies to library systems. (5%)

E = Primary  
 NE = Secondary

### **SUPERVISION and INTERACTION**

Supervised by or report to: Director, Information Systems and Applications, University of Rochester Libraries

Supervision exercised: Student assistants and interns, as required.

### **MACHINES AND EQUIPMENT USED ON THE JOB**

PC and Macintosh desktops; servers, printers, digital cameras, scanners, CD/DVD-ROM drives, video capture equipment

### **QUALIFICATIONS**

*Minimum Acceptable Qualifications:* Bachelor's degree in related discipline such as Computer Science, Instructional Design, or Information Technology plus 4-5 years related experience, or equivalent combination of education and experience. Detailed working knowledge and extensive experience with HTML, CSS, and scripting languages related to the World Wide Web, and WYSIWIG editors (Dreamweaver, Homesite, etc.) Experience in integrating applications written in different programming languages and located in various locations. Experience in analyzing legacy systems, designing new system structures, and migrating the old into new. Detailed working knowledge and extensive experience with SQL and multiple programming languages, preferably VB, Java, and Perl. Ability to teach and instruct others in the usage of

Web-based tools/applications. Expert level skills with database design and interaction of databases with Web pages via Cold Fusion. Design experience using editors such as Photoshop and Flash. Excellent oral and written communication skills. Capable of working collaboratively with faculty, staff, project leaders, and students. Essential personal characteristics include flexibility, initiative, creativity and the ability and willingness to work cooperatively in an evolving technological environment. The library's mission statement includes a strong service orientation and the successful candidate will be expected to advance that goal.

*Desirable Qualifications:* Master's degree. Experience administrating servers (Coldfusion, IIS, SQL Server). Experience with application development frameworks such as Fusebox and Mach II. Ability to manipulate HTML and XML via the DOM and XSLT.

*This document describes typical duties and responsibilities and is not intended to limit management from assigning other work, either within this service area or another, as required.*

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