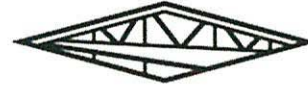


# Job Description



## 1. Job Details:

<b>Job Title:</b>	Senior Software Engineer	<b>Reports to:</b>	Head, Digital Library Repository
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## 2. Job Purpose:

To help create the Digital Archival Repository infrastructure and services that support adaptable and reusable technology solutions.

## 3. Job Dimensions: Key facts and figures which give an indication of the scope and scale of the job.

<b>Annual Operating Budget/Project Budget/Sales Revenue:</b>	n/a				
<b>Number of Staff Supervised:</b>	0	<b>Direct Reports:</b>	0	<b>Contractor/Others:</b>	0

## 4. Key Result Areas:

### KEY RESULT AREAS

- Analyze operations and collaborate on detailed design, installation, and testing of subsystems and system components in a complex, multi-platform environment
- Help engineer the repository's preservation environment, including object ingest, retrieval and reporting
- Consult with a diverse group of end users and vendors to develop intra-system user tradeoffs
- Help analyze system specifications and system requirements
- Undertake complex programming assignments, develop programming modules and unit tests, and make system performance determinations
- Write, edit, and debug programs for assigned projects as assigned
- Document programming modules and system configurations to ensure availability of programming information and user instructions
- Test programming modules to ensure that logic and syntax are correct
- Perform code review and help other team members develop their technical skills
- Protect operations by keeping information confidential
- Update job knowledge by studying state-of-the-art development tools, programming techniques, and computing equipment; participating in educational opportunities; reading professional publications; maintaining personal networks; and participating in professional organizations
- Participate in team work and committees as assigned
- Perform miscellaneous duties and conduct special projects as assigned

## 5. Operating Environment, Framework & Boundaries:

Work hours, days and locations will vary according to QNL requirements. Regularly-scheduled evening and weekend work may be required.

## 6. Communications and Working Relationships:

- Head, Digital Library Repository – close contact to define task lists and define projects, and to provide progress reports and receive guidance and approvals
- Director - Library Information – contact as needed to carry out assigned projects
- Digital Library Repository application development team – close contact to define tasks and design, test & implement projects
- Library IT staff – contact as needed to collaborate on and implement QNL IT projects
- External database vendors – contact as needed to resolve technical issues

## Senior Software Engineer

- End users – contact as needed to collect information about the repository, to test applications, and to troubleshoot
- External institutes/Libraries – contact as needed as for troubleshooting, data conversion, migration, and training

### 7. Problem Solving & Complexity:

- Evaluates different options when solving problems
- Refrains from drawing conclusions in the absence of clear evidence, takes time to collect facts before developing a solution
- Considers the medium term as well as immediate short-term impact of outcomes and actions
- Demonstrates an awareness of the impact of preferred solution on other projects/ related problems

### 8. Decision-Making Authority & Responsibility:

- Accepts responsibility / accountability for own decisions and explains the rationale
- Reviews available information in conjunction with interested parties and arrives at decisions by consensus judging degree of consultation needed to ensure commitment
- Remains calm and resourceful when making difficult decisions, basing them on facts
- Ensures decisions are taken by self and group after reviewing available information while exhibiting reasonable foresight

### 9. Minimum Knowledge, Skills & Experience:

- BSc in Computer Engineering
- 6-8 years of relevant full-time work experience
- Analytical ability to handle the complex information management issues in an innovative manner
- Excellent knowledge of at least 2 programming languages, such as Ruby on Rails, Python, or Java as well as knowledge of SQL language, data query and analysis tools; experience with open source applications would be an advantage
- Excellent knowledge of data structures
- Excellent knowledge of institutional repository design, digitization projects, preservation & archiving systems, and data migration
- Ability to work collaboratively and independently in a team environment is essential
- Strong interpersonal and communication skills, work ethic, and end-user focus, with a cooperative and flexible attitude
- Ability to coordinate and direct the work of others and work in a multi-cultural environment
- Tidy and well-organized approach to work
- Ability to work methodically and accurately without close supervision
- Good oral and written communication skills, including the ability to draft and edit a variety of written reports and communications and articulate ideas clearly and concisely; Arabic proficiency a plus