Job Description

Comp ID:	035990
Job Title:	Junior Software Engineer / Administrative 3
School/Department:	Research IT/IT Services
Job Category and Level:	Professional, Administrative & Support; Executive

The Purpose of the Role

To support Digital Repository of Ireland (DRI) participation in the EU-funded EnrichEuropeana+ project and the Wellcome-funded Archiving Reproductive Health project.

To develop tools and workflows to integrate Transcribathon outputs with the Digital repository of Ireland's Repository platform, using APIs and standards compliant data structures and formats. To maintain and enhance the Repository platform in line with the goals of the DRI and the EnrichEuropeana+ project.

To implement support for the archiving of Social Media content into the Digital Repository of Ireland platform.

Context

The role holder will work as part of a small team of linux oriented software engineers in the DRI group of the Research IT unit in Trinity College IT Services. They will also work closely with other DRI team members in Trinity College Dublin, the Royal Irish Academy and Maynooth University to identify areas where the repository functionality can be expanded to better support the aims of the project and the DRI as a whole.

The Digital Repository of Ireland (https://www.dri.ie/) is a CoreTrustSeal-certified Trustworthy Digital Repository for Ireland's cultural and social data. It consists of a consortium with staff in three partner institutions in Ireland: Trinity College Dublin, the Royal Irish Academy and Maynooth University. Trinity College Dublin, along with the other DRI consortium members, is a partner in a number of externally funded projects. Two of these, EnrichEuropeana+ and Archiving Reproductive Health, require a junior software developer to assist with various aspects of the projects.

"Enriching Europeana through citizen science and artificial intelligence - unlocking the 19th century" (EnrichEuropeana+) which runs from April 2021 to September 2022. This project will increase the amount and quality of 19th Century handwritten content in Europeana, add automated handwriting recognition to the Transcribathon platform, and enhance the results of Transcribathon activities by ensuring that transcriptions and metadata enrichments can be fed back to the Aggregator and Content Provider platforms, and to Europeana.

"Digital Preservation of Reproductive Health Resources: Archiving the 8th" (Archiving Reproductive Health) which runs from January 2020 to December 2022. This project will provide long term preservation and access to the many at-risk archives generated by grassroots women's reproductive health movements during the campaign.

The work will involve consuming various APIs from Europeana.eu and Transcribathon.eu, as well as a variety of Social Media platforms. Content retrieved from these APIs must be formed into preservation-ready digital records, or integrated into existing records.

The Repository platform is based on widely used technologies such as Apache Solr, Ruby on Rails, Fedora Commons/Samvera, MySQL, and RESTful web APIs. The DRI source code is available on Github at https://github.com/Digital-Repository-of-Ireland.

Main Responsibilities

The successful candidate will help develop tools and functionality to retrieve content from APIs and integrate and display it within the Digital Repository of Ireland platform. The main duties are:

Systems

- Develop tools and workflows to retrieve transcriptions and enrichments from the Transcribathon platform

- Develop tools for retrieving content from Social Media platforms, and converting it to Digital Objects

- Develop a user interface to allow DRI Collection Managers and content providers to examine and review content from Transcribathon as part of the Repository application

- Explore ways to integrate transcriptions and enrichments into the DRI Digital Object records

- Develop integrated viewers for Social Media content within the Digital Repository of Ireland platform

- Contribute to guidelines for archiving and preserving user-generated content

- Contribute to bug fixing, documentation, software maintenance and other development activities as directed by the DRI Technical team

- Provide support for data and metadata mapping

Organisation

- Participate in DRI staff and project meetings, DRI cross-functional Task Forces, and other DRI activities as required

- Occasional travel to project meetings and conferences in Ireland and Europe or online participation as required

- Assisting in project management activities such as project planning, reporting and project metrics, helping to organise and run events and meetings, publicity/dissemination of project results

General

- Deputise for colleagues as required and represent the manager or department at meetings and events.

- Any other duties that arise from time to time as directed by the manager or nominee.

Funding Information

Connecting Europe Facility (CEF)

Person Requirements

The role-holder will require the following knowledge, skills, and attributes for successful performance in the role.

Qualifications

- Degree in Computer Science / Software Development, or another relevant field -- essential

Knowledge & Experience

- At least one years' experience in a software development role -- essential
- Demonstrated ability to work well with a range of technical and non-technical staff to contribute to the development of functional requirements, specifications, work plans and schedules -- essential

- Experience working in Linux environments -- essential
- Experience developing applications using web frameworks such as Ruby on Rails -- essential
- Demonstrated proficiency with team collaboration tools (issue-trackers, wikis, etc.) and version control systems (e.g., Git or Subversion) – essential
- Understanding of Digital Preservation technologies and processes
- Experience with the Samvera Repository Framework
- Expertise developing applications with Ruby on Rails
- Familiarity with a range of data formats such as XML and JSON
- Experience with metadata standards, e.g., EDM, Dublin Core, MARC, MODS, EAD, OAI-PMH
- Experience working with APIs
- Demonstrated experience contributing to community-based open-source projects

Skills
- Strong analytical skills and attention to detail
- Excellent communication, written and interpersonal skills
- Demonstrate a clear understanding of the role and responsibilities and be confident about delivering same

Personal attributes
- Solid organisational and time management skills – the ability to work under pressure to complete tasks, meet deadlines, to multi-task and prioritize
- Ability to work independently with initiative and to participate well within a distributed team environment
- Takes responsibility for delivery of set goals
- Asks questions to ensure understanding
- Shares all relevant information with appropriate others and seeks others' input
- Flexible approach to working hours as the demands of the post may require work outside normal office working hours from time to time.
- Competent in using technology in own work

Trinity Competencies

In Trinity there are 6 Core Competencies that are applicable to all roles across a range of professional, administrative and support jobs, unlike specialist or technical skills which may be job specific. They provide a common language for describing performance and the abilities/attributes displayed by individuals. They focus on 'how' tasks are achieved, not 'what' is achieved.

Below is a summary definition of the 6 Core Competencies.

	Competency	Summary Definition
1	Agile Leader	Sees the big picture and harnesses opportunities to achieve the University's goals. Creates clear direction for the future and how to get there.
2	Unlocks Potential	Energised, capable and confident to take ownership and responsibility for their development and goals. Motivates, supports, and develops people to perform to the best of their ability.
3	Service Ethos	Finds ways to increase stakeholder and customer satisfaction. Builds relationships, is proactive and delivery focused in order to anticipate, meet & exceed expectations.
4	Builds Trusted Relationships	Communicates in a clear and respectful manner building trust and commitment for mutually beneficial outcomes.
5	Decision-making	Confidently makes timely decisions based on knowledge, evidence and sound judgement.
6	Achieves Results	Delivers results by setting direction, planning, executing and evaluating impact.