Reference IT-CDA-47

Project/ Activity Towards InvenioRDM-based CDS: migrating and enabling the

future photo archive

Duration 1 year, renewable (maximum 2 years)

CERN Document Server (CDS) is the CERN Institutional Repository, acting as the main CERN documents Description

> store, preserve and disseminate their research publications, as well as videos, images, books, and reports. It currently contains more than 1 million records and 50 TB of data. In order to provide a modern and user-friendly tool to our users' community, we are working on the

hub. CDS is being used by the entire CERN, experiments and departments (more than 40'000 users), to

next generation of the web platform that will be also available as open source product and will be used by many other organisations.

We are very excited about this project here at CERN: not only you will have the opportunity to contribute to an open source project that will have a large impact and adoption in the digital repositories' world, but you will also work with cutting-edge technologies in a very friendly environment to build and deliver an amazing product.

This new repository will be used by the entire CERN community, thus having a big impact on the dayto-day activities of the CERN users.

As first milestone, the team will focus on delivering the new web platform for the CERN photos catalog. The objective is to create a new modern, good-looking, fully-featured and user friendly portal to allow users to easily find and upload CERN photos.

As part of the CDS team:

- you will be part of a highly dynamic and experienced team and you will be fully integrated in all development activities
- you will be facing challenges such us how to develop with scalability, performance and high customizability in mind and how to work efficiently in the team
- your main tasks will include development of backend and frontend modules but also devops. Main technologies are for backend Python 3, using Flask/Jinja web development framework and Celery for tasks, and for frontend HTML5/SemanticUI/React. Plus, SQLAlchemy/PostgreSQL for persistence, Elasticsearch for search, Redis for caching, RabbitMQ for messaging and Docker/OpenShift for deployment
- you will be involved in the data migration from the old legacy system to the new platform

Full Stack software engineer. Proven experience of web development with Python/Flask. React and **Profile**

open source software is a plus.

Development of a new CDS digital repository platform to store, disseminate and preserve CERN photos, which will comprise the following tasks:

- Development and deployment of backend and frontend modules
- Automation of data migration from the old legacy system to the new platform
- Contribution to the underlying open source InvenioRDM project, which will also be adopted by other organizations across the world
- Participate to the various development activities following the team Agile best practices

Specific details