

2022-05553 - Devops Engineer

Contract type : Fixed-term contract
Renewable contract : Oui
Level of qualifications required : Graduate degree or equivalent
Fonction : Temporary scientific engineer
Corps d'accueil : Ingénieur d'Etudes / Ingénieur de Recherche (IE/IR)
Level of experience : From 3 to 5 years

Context

Software Heritage is an ambitious nonprofit, entirely Free/Open Source Software (FOSS) initiative that aims at collecting, organizing, preserving for the very long term, and sharing all publicly available software in source code form, together with the corresponding complete development history (e.g., from a Version Control System) where available. The Software Heritage archive already contains more than 13 billion unique source code files and 2.7 billion commits, retrieved from more than 185 million software projects.

The SoftwareHeritage initiative is hosted by INRIA foundation.

Assignment

We are looking for a experienced DevOps engineer to grow our operations team. The ideal candidate will be a highly motivated individual with a focus on scripting, automation, continuous integration and deployment.

As a member of the Software Heritage operation team, the candidate will contribute to maintain the Software Heritage stack and infrastructure, design the infrastructure evolutions and maintain an efficient development environment for our developers.

Here is an non exhaustive list of the possible ongoing projects you may be working on:

- Help in designing the architecture of upcoming components of the Software Heritage software ecosystem, aiming at ensuring horizontal and/or vertical scalability
- Participate to the migration of our database storage from postgresql to cassandra
- Participate to the migration of our internal object storage to a distributed storage solution (Ceph-based)
- Migration of our old school CI/CD pipeline to a more modern stack based on tools like Gitlab CI or ArgoCD

You can have a look to a more exhaustive list of projects [on the Software Heritage 2022's roadmap](#)

Main activities

- supervision and maintenance of the Software Heritage infrastructure
- deployment and automation
- active participation in team life
- interaction with relevant Open Source communities and with Software Heritage partners

Skills

The ideal candidate should have experience in participating in existing FOSS projects, in any capacity (developer, community organizer, technical writer, etc.). According to the candidate experience, we expect self-organisation and autonomy skills. System administration good practices should be well known or mastered, especially in the context of FOSS development, and software development should be at least a familiar skill.

The following skills are expected:

- Debian GNU/Linux system administration
- Python application deployment and operation
- Puppet or equivalent infrastructure automation languages
- Postgres or equivalent DB administration
- Container technologies
- Good English level (written and oral)
- Good relational and communication skills

Knowledge and experience of the following will be considered a plus:

- Python application development
- Distributed scheduling technologies (e.g., RabbitMQ, Kafka, etc.)
- NoSQL databases (e.g., Cassandra, MongoDB, etc.)
- Scale-out storage (e.g., Ceph, cloud-based blob storage, ZFS, Swift, etc.)
- Working knowledge of distributed software architectures
- System programming in C

Benefits package

- Subsidized meals
- Partial reimbursement of public transport costs
- Leave: 7 weeks of annual leave + 10 extra days off due to RTT (statutory reduction in working hours) + possibility of exceptional leave (sick children, moving home, etc.)
- Possibility of teleworking (after 6 months of employment) and flexible organization of working hours
- Professional equipment available (videoconferencing, loan of computer equipment, etc.)
- Social, cultural and sports events and activities
- Access to vocational training

General Information

- **Town/city :** Paris
- **Inria Center :** [Siège](#)
- **Starting date :** 2022-12-01
- **Duration of contract :** 2 years
- **Deadline to apply :** 2023-02-28

Contacts

- **Inria Team :** DGD-I (DGD-I)
- **Recruiter :**
Dupre Laurence / Laurence.Dupre@inria.fr

About Inria

Inria is the French national research institute dedicated to digital science and technology. It employs 2,600 people. Its 200 agile project teams, generally run jointly with academic partners, include more than 3,500 scientists and engineers working to meet the challenges of digital technology, often at the interface with other disciplines. The Institute also employs numerous talents in over forty different professions. 900 research support staff contribute to the preparation and development of scientific and entrepreneurial projects that have a worldwide impact.

The keys to success

- Strong background in Linux in an enterprise production environment preferably at scale
- Knowledge of development of systems management and administration automation
- Experience with Kubernetes or similar container orchestration environments
- Experience in configuration management technologies such as Puppet, Chef or Ansible
- Familiar with one or more cloud providers
- Experience coding in Python or similar languages
- Excellent problem solving skills

We do not expect candidates to be familiar with all of them, but expertise with one or more of the above technologies will be appreciated.

Instruction to apply

CV and cover letter required



Defence Security :

This position is likely to be situated in a restricted area (ZRR), as defined in Decree No. 2011-1425 relating to the protection of national scientific and technical potential (PPST). Authorisation to enter an area is granted by the director of the unit, following a favourable Ministerial decision, as defined in the decree of 3 July 2012 relating to the PPST. An unfavourable Ministerial decision in respect of a position situated in a ZRR would result in the cancellation of the appointment.

Recruitment Policy :

As part of its diversity policy, all Inria positions are accessible to people with disabilities.

Warning : you must enter your e-mail address in order to save your application to Inria. Applications must be submitted online on the Inria website. Processing of applications sent from other channels is not guaranteed.

Remuneration

Depending on degree and work experience