Offer #2020-02294

Back-end developer for Software Heritage

Contract type : Fixed-term contract

Renewable contract : Yes

Level of qualifications required : Graduate degree or equivalent

Fonction : Temporary scientific engineer

Level of experience : From 3 to 5 years

Context

Software Heritage is an ambitious nonprofit, entirely Free/Open Source Software (FOSS) project 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 about 6 billion unique source code files, retrieved from more than 90 million software projects.

Les bureaux de Software Heritage se trouvent au Centre de Recherche Inria Paris, situé au 2, rue Simone Iff, à Paris.

Assignment

We are looking for a back-end developer to grow our development team, and work on:

- implementing new Software Heritage features according to project roadmap and specifications provided by the management team,
- maintaining a healthy code base using state-of-the-art software development best practices (DVCS, continuous integration, unit tests, refactoring, documentation, code review, etc.),
- actively participating in the FOSS communities of software components used by Software Heritage,
- design the architecture of upcoming components of the Software Heritage software ecosystem.

Main activities

- software development for Software Heritage
- documentation, code review, test and integration
- active participation in team life
- interaction with relevant Open Source communities and with Software Heritage partners

Skills

Expected skills for the successful candidate are the followin:

- Python
- Good knowledge of GNU/Linux systems
- Working knowledge of Postgres or other RDBMS
- Working knowledge of distributed software architectures
- Design principles of REST and microservices architectures
- Good English level (written and oral)
- Good relational and communication skills

Working knowledge of one or more of the following techniques and technologies would be a plus:

- Experience with large scale object storage solutions (Ceph, Cloud-based blob storage, ZFS, Swift, etc.)
- Container technologies (docker, docker-compose, kubernetes, etc.).
- System programming in C
- Rust programming language
- Functional programming
- Experience with distributed scheduling technologies (RabbitMQ, Kafka, etc.)

All the code developed as part of this position will be released under a FOSS license, usually copyleft

(GPL3 or AGPL3). Upstream contributions to FOSS products we depend upon are strongly encouraged.

Benefits package

- Subsidised catering service
- Partially-reimbursed public transport

Remuneration

En fonction des diplômes et de l'expérience professionnelle

General Information

- **Town/city :** Paris
- **Inria Center :** Siège
- **Starting date :** 2020-03-01
- **Duration of contract :** 2 years
- **Deadline to apply :** 2020-06-14

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

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. Software development good practices should be well known or mastered, especially in the context of FOSS development.

The candidate will be:

- fluent with Python and Python ecosystem tools (pypi, pip, virtualenvs, etc.),
- familiar with the GNU/Linux environment, preferably Debian (or derived distros),
- rigorous in day-to-day organisation, especially using know software forge (GitLab, GitHub, etc.),
- comfortable with the customs of FOSS development communities (distributed organization, IRC and mailing list based communication, sprints, etc.)

A successful candidate will have strong programming skills, fluency in at least a couple of system- and/or application-level programming languages, as well as a solid track record of contributions to existing FOSS projects and communities.

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.

Instruction to apply

CV et lettre de motivation

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.