JOB OPENING AT IRB BARCELONA

HPC SYSTEM ADMINISTRATOR (ref. AD/21/18)

Created in 2005 by the Generalitat de Catalunya (Government of Catalonia) and the University of Barcelona, IRB Barcelona is a Severo Ochoa Centre of Excellence—a seal that was awarded in 2011.

The institute is devoted to conducting research of excellence in biomedicine and to transferring results to clinical practice, thus improving people's quality of life, while simultaneously promoting the training of outstanding researchers, technology transfer, and public communication of science. Its 25 laboratories and seven core facilities address basic questions in biology and are orientated to diseases such as cancer, metastasis, Alzheimer's, diabetes, and rare conditions.

IRB Barcelona is an international centre that hosts 400 members and 30 nationalities. It is located in the Barcelona Science Park. IRB Barcelona forms part of the Barcelona Institute of Science and Technology (BIST) and the "Xarxa de Centres de Recerca de Catalunya" (CERCA).

IRB Barcelona is seeking a IRB Barcelona an enthusiastic **HPC System Administrator** with experience in the management of Information Technology infrastructure in scientific research environments to join its **Information Technology Services Department**.

The Information Technology Services (ITS) Department provides IT services to the whole organisation and develops digital transformation projects with the aim to facilitate the operations of the organisation and the accomplishment of the goals of its research community. To fulfil this mission, the ITS Department offers a broad spectrum of IT services, solutions and support, particularly high performance computing (HPC) services.

The HPC System Administrator makes recommendations, provides specifications for procurement, architecture, installation, support, and maintenance of all hardware and software for the HPC environments. Performing day-to-day operations which include; supporting end-users with issues using the cluster, optimizing batch job submissions, getting a full understanding of workflows and pipelines and finding how best to optimize resources.

DUTIES

- To make recommendations, provides specifications for procurement, architecture, installation, support, and maintenance of all hardware and software for the HPC environments
- To Install and configure new hardware and software.
- To administer a heterogeneous group of systems, both standard infrastructure and HPC systems.
- To troubleshoot any reported problems.
- To be responsible for documenting the configuration of the systems.
- To evaluate new technologies and solutions that can be later included in the catalogue of services offered to the research groups.

EXPERIENCE, KNOWLEDGE, SKILLS & SELECTION CRITERIA

Must Have – Required

- **Experience**: 5 years of experience in a similar position

- **Knowledge**:
    - Bachelor degree or higher in Informatics, Telecommunications Engineering, or similar
    - Networking basic knowledge
    - HPC workload managers Knowledge (Slurm, SGE)
    - Linux operating systems, including scripting and programming proficiencies (Shell, Perl or Python)
    - Common server hardware architectures including servers (CPU, bus, memory), SANS, disk arrays, network hardware
    - Networked Storage technologies like NAS, SMB/CIFS, GPFS, BeeGFS
- **Skills**:
    - Excellent writing and verbal communications skills in English and Spanish
    - Strong organizational, planning and multitasking capacities
    - Teamwork skills
    - Ability to work under tight deadlines with minimal supervision

Desirable

- **Knowledge**:
    - HPC GPUs node administration knowledge
    - Web server administration (Apache, NGINX,…)
    - SSL certificate administration
    - Containerization (Docker, Singularity, Kubernetes,...)
    - Workflow managers like Nextflow, Snakemake, Galaxy or Toil
    - Fortran, C, and C++ Compilers
    - Genomic software like GATK or Picard tools
    - NoSQL database administration (MongoDB, Cassandra or similar) and BigData technologies such as Hadoop
    - Management of public or private Cloud infrastructure (OpenNebula, Openstack, AWS, Azure..)
    - Configuration of monitoring systems such as Nagios and Ganglia
    - Configuration of LDAP in Linux environments
    - MPI, CUDA, and OpenMP
    - ML/AI libraries (Tensorflow, Pytorch, Keras)

WORKING CONDITIONS & ENTITLEMENTS

- **Working conditions**: Employed in compliance with Spanish legislation and regulations under a full-time contract. Employees receive the benefits of the Spanish Social Security system covering sickness, maternity/paternity leave and injuries at work. Salary commensurate with experience and qualifications.

- **International Environment:** The opportunity to join a prestigious international research institution and become a member of our administration team.

- **Continuous training** in a high-quality environment.

HOW TO APPLY & SELECTION PROCESS

Applications for the above opening should include a motivation letter and full CV and should apply on https://recruitment.irbbarcelona.org/, indicating the Reference: **AD/21/18**

- **Deadline for applications**: 26/11/2021
  If no suitable candidate is found, the deadline will be extended.

- **Number of positions available**: 1

- **Selection process:**

  – **Pre-selection**: Will be based on CV, motivation letter, experience, management of research and innovation.

  – **Interviews**: Short-listed candidates will be interviewed.

  – **Job Offer:** Will be sent to the successful candidate after the interview.

For more information please visit our website at: www.irbbarcelona.org

Note: The strengths and weaknesses of the applications will be provided upon request.

If you, as an applicant, have any suggestion or wish to make a complaint regarding the selection process, please contact us at the following email address: irbrecruitment.suggestions@irbbarcelona.org . You will receive a response within a month.