Informatics systems administration and/or development specialist

Refª interna: INFORMATICO-BIOINFORMATICO/CGPP_IBMC/2104/2023

CGPP – Centre for Predictive and Preventive Genetics (www.cgpp.eu) is a provider of clinical and molecular diagnostic services, in the field of Medical Genetics, of the IBMC - Institute for Molecular and Cell Biology (www.ibmc.up.pt), at i3S – Institute for Research and Innovation in Health (www.i3s.up.pt). CGPP is also a clinical translational research centre, with strong links to hospitals of the national health services and to patients' associations and is committed to the translation of research and knowledge into value for society.

The successful candidate will integrate the CGPP's bioinformatics team and will be given unique opportunities for continued education/training and professional development.

We are looking for a new team member to perform (or to contribute towards) the following tasks:

• Administer, maintain and optimize the CGPP informatics infrastructure, including servers, storage, network and software;

• Install, configure, and troubleshoot NGS software and pipelines according to the latest next-generation system (NGS) technologies, tools and best practices;

• Development of new software tools to increase laboratory workflow integration, specifically the steps involved in NGS-based genetic tests;

• Elaborate and maintain documentation and standard operating procedures for NGS infrastructure and laboratory data management;

• Manage data storage, backups, and disaster recovery for NGS and laboratory data;

• Work collaboratively with scientific, technical, and clinical staff and bioinformaticians to support NGS data analysis;

• Provide technical support for NGS data analysis workflows and software.

The new team member should demonstrate exceptional troubleshooting and problem-solving abilities, as well as possess strong communication and collaboration skills. In addition, should have a keen attention to detail, the capability to work independently and have good command of the English language (written and spoken).

Minimum requirements:

1. BSc (or *Licenciatura* degree) in computer science, or MSc in bioinformatics, or other related field;

2. One of the following profiles:

Profile I

- Experience in working with High-Performance / High Availability Computing infrastructure, including servers, storage and software;

- Knowledge or experience in Linux (or similar) system administration.

Profile II

- Proficient in at least one of the following programming languages: Python, Perl, Bash (or compatible shell scripting language) or R;

- Previous experience with Linux (or similar) environments, including proficiency working using the command line.

Preferential conditions:

- Knowledge or experience in NGS data processing, including NGS data analysis workflows, such as Snakemake or NextFlow, preferably in a clinical context;

- Experience in maintaining High-Performance / High Availability Computing infrastructure;

- Proficiency in one of the following programming languages: Java, C++, Python or Bash;

- Experience working with databases, including SQL (preferably MS-SQL);

- Previous experience with Agile/Scrum methodologies supporting collaborative team work;

- Experience working with and maintaining virtualization technologies, such as Docker/Singularity, VirtualBox or VMWare;

- Experience with cloud-based NGS infrastructure, such as Amazon Web Services, Google Cloud or Microsoft Azure;

- Previous working experience in a laboratory-clinical environment.

The selection jury has the following composition:

Jorge Oliveira (chairman), Paulo Silva, Victor Mendes, Milena Paneque, João Freixo

Workplace: IBMC/i3S, Rua Alfredo Allen, 208, Porto, Portugal.

The applications between 24th April and **11th June 2023** require a detailed CV, motivation letter, and academic degrees' certificates (these are mandatory documents), and also professional/academic references. Documents must be submitted at the following link:

https://DOZER.i3s.up.pt/applicationmanagement/#/addapplications/INFORMATICO-BIOINFORMATICOCGPP_IBMC21042023

The expected starting date is **1st of August 2023**.