ESO

European Organisation
for Astronomical
Research in the
Southern Hemisphere

The European Organisation for Astronomical Research in the Southern Hemisphere (ESO) is the foremost intergovernmental astronomy organisation in Europe and the world's most productive ground-based astronomical observatory. ESO carries out an ambitious programme focused on the design, construction and operation of powerful ground-based observing facilities enabling astronomers to make important scientific discoveries.

ESO operates three unique world-class observing sites in northern Chile: La Silla, Paranal and Chajnantor (home to ALMA and APEX), and the ESO Headquarters are located in Garching, near Munich, Germany.

At Paranal, ESO operates the Very Large Telescope, the world's most advanced visible-light astronomical observatory. ESO is a major partner in ALMA, the largest astronomical project in existence. And on Cerro Armazones, ESO is building the 39-metre Extremely Large Telescope (ELT), which will become "the world's biggest eye on the sky" and whose operations will be fully integrated into the Paranal Observatory.

For its Science Operations Software Department (SCS), within the Directorate of Engineering (DoE) at its Headquarters in Garching, near Munich, Germany, ESO is advertising the position of

Software Engineer (ALMA Science Archive)

We are looking for a software engineer to join our Data Flow Infrastructure (DFI) group in the Science Operations Software (SCS) department of the Directorate of Engineering. The DFI group is responsible for the development and maintenance of software tools which are critical for the end-to-end operations of the ESO observatories.

Main Duties and Responsibilities:

You will work as part of the ALMA Archive Services team on the development and maintenance of a suite of software tools supporting the ALMA Archive. You will frequently interact with the Subsystem Scientists for the specification and the validation of the tools. In collaboration with the observatory staff and colleagues in the Data Flow Infrastructure group, you will be able to operate independently, meet the agreed deadlines and proactively contribute to on-going process improvements. Your main duties will be the following:

- Improvements and additional functionality for the Archive query interface (ASA explorer: ASAX), including the ability to display previews, CARTA integration, Virtual Observatory services and general usability improvements;
- Rewrite of the user-interface of the ALMA RequestHandler, integrating it fully into the ASAX;
- Refactoring of the ALMA Data Processing Toolchain component ProMo that is responsible for transferring science pipeline products from the ALMA Regional Centres to the observatory, and for triggering additional data processing steps;
- Technical debt reduction of NGAS, the bulk-data ingestion software, DataPacker, and DataTracker.

Key Competences and Experience:

Essential Competences and Experience:

- Demonstrated capability of conducting small to medium size software projects throughout the entire software lifecycle from requirements, analysis, design, implementation, up to successful deployment;
- Strong conceptual and analytical skills; right balance between maintaining the big picture and a hands-on attitude to get things done with a proactive can-do attitude;
- Strong experience developing software in Java;
- Sound knowledge of relational databases and SQL;
- Good familiarity with the Linux environment and its command line usage;
- Knowledge of standard software development processes, preferred agile or iterative;
- Very good oral and written communication skills;
- Knowledge of software engineering principles and tools like configuration management, bug reporting, etc.

Desirable Competences and Experience:

- Experience with the Spring framework, preferably with Spring Boot;
- Interfacing Java to relational databases using JDBC and to ElasticSearch;
- Experience with web-based user interface technologies such as JavaScript, JQuery, CSS. Angular would be highly advantageous; An interest in UX;
- Scripting languages: Python, Bash, etc.;
- Experience in science archives and astronomical data formats (e.g. Flexible Image Transport System).

Qualifications:

University degree in Computer Science, Astronomy, Physics, Engineering, or equivalent.

Language Skills:

Excellent command of the English language

Duty Station:

Garching near Munich, Germany with possible duty trips to the ESO/ALMA sites in Chile and elsewhere.

Reports to:

Head of the Dataflow Infrastructure Group

Remuneration and Contract:

We offer an attractive remuneration package including a competitive salary (tax free), comprehensive pension scheme and medical, educational and other social benefits, as well as financial help in relocating your family and the possibility to place your child/children in day-care. The initial contract is for a duration of one year with a fixed term extension of a second year, in accordance with the applicable policies and staff rules and regulations. For any further information, please visit https://www.eso.org/public/jobs/conditions/paidassoc/.

Career Path: V

Application:

If you are interested in working in areas of frontline science and technology and in a stimulating international environment, please visit http://www.eso.org for further details.

Applicants are invited to apply online at http://jobs.eso.org/. Applications must be completed in English and should include a motivation letter and CV. Within your CV, please provide the names and contact details of three persons familiar with your work and willing to provide a recommendation letter upon request. Referees will not be contacted without your prior consent.

Deadline for applications is 17 May 2020

Starting date: As soon as possible.

No nationality is in principle excluded, however, recruitment preference will be given to nationals of Australia, Austria, Belgium, the Czech Republic, Denmark, Finland, France, Germany, Ireland, Italy, the Netherlands, Poland, Portugal, Spain, Sweden, Switzerland, the United Kingdom and Chile irrespective of gender, age, disability, sexual orientation, race or religion.