Software Engineer

ISAAC NEWTON GROUP OF TELESCOPES
LA PALMA, CANARY ISLANDS

Ref: LSR02_17   Closing date: 30-04-2017

Applications for the post of Software Engineer are invited by the Isaac Newton Group of Telescopes (ING) to work on Linux-based software systems. The ING operates the 4.2-m William Herschel Telescope (WHT) and the 2.5-m Isaac Newton Telescope on behalf of the UK's Science and Technology Facilities Council, the Dutch *Nederlandse Organisatie voor Wetenschappelijk Onderzoek*, and the Spanish *Instituto de Astrofísica de Canarias.* The facilities, which are equipped with world-class imaging and spectroscopic instruments, are located at the *Observatorio del Roque de Los Muchachos (ORM)* situated at an altitude of 2400 m on the Spanish island of La Palma.

We are seeking an experienced Software Engineer to join a small software development team. The successful candidate will have responsibility for developing and maintaining ING's image acquisition systems and will partake in the delivery of observatory software components for WEAVE (a new multi-object spectrograph instrument for the WHT) and other projects.

Under the leadership of the Head of the Software Group, the post is ideally suited to a Software Engineer who is looking for opportunities to grow in a challenging operational environment and who is capable of contributing to the on-going development of software projects. The post holder will be expected to exercise sound judgement using their interpretative and innovative abilities and will have substantial knowledge and experience in software engineering methodologies, having worked in this field for at least seven years.

Responsibilities

The successful candidate will be expected to:

- Deliver software for systems which include image acquisition and processing, telescope guiding and user interfaces
- Write software following specific design documentation
- Write user manuals and engineering manuals
- Identify and correct software-related faults
- Prepare instrumentation for scientific observations

Good communication skills are an important component of this post and there will be a requirement to conduct business-related communications on a daily basis with stakeholders who are both internal and external to ING. The post holder will be expected to write technical papers and reports and make

presentations at project review meetings as well as at international conferences, in English. The post holder will need to communicate effectively with non-native English speakers.

SHORTLISTING CRITERIA

Qualifications

Preferred candidates will possess a degree in computer science, physics or mathematics.

Essential Knowledge and Experience

The successful candidate must:

- Be a competent Software Engineer with the ability to write, test and debug code in C, C++, Java and Python
- Possess a good understanding of database design and programming methodologies, with a working knowledge of PostgreSQL
- Have the ability to use program flow diagrams and UML applications to document software design with tools such as Enterprise Architect
- Possess an understanding of software communication protocols using CORBA, sockets and serial lines
- Have experience in image analysis
- Have experience in communication with hardware, such as cameras, motors, and sensors
- Have experience in the specification process of software systems
- Possess an ability to write clear and well-structured documentation and reports
- Be capable of providing authoritative advice, in software–related issues, to other individuals as part of a project or operational team
- Have a demonstrable analytical approach to solving software-related faults
- Possess good time management and organisational skills
- Have a valid class B driving license (or equivalent)
- Be fluent in English

Desirable Knowledge and Experience

For this appointment, the following will also be taken into consideration:

- Previous experience in astronomical or other scientific institutions
- Knowledge of TCL/TK
- Knowledge and understanding of statistics and trigonometry
- Experience in programming and communicating with PLCs
- Project management methodologies
- Software development methodologies
- Ability to speak Spanish or a willingness to learn

Valued Personal Qualities

- Ability to work with others both within ING and with its external stakeholders
- Ability to adopt a meticulous and proactive approach to work to achieve and maintain ING's standards
- Ability to demonstrate awareness of the need for high standards and of ways to make improvements
- Is open to change and will actively seek to support change within the ING. Shows a willingness to accept changes to procedures
- Understands, recalls, applies and adapts relevant information in a systematic approach
- Understands the needs of situations and creates solutions to resolve problems
- A high level of drive, enthusiasm, and focus on the achievement of objectives
- Be a leader and self-starter as limited technical support will be provided;

Other requirements

Applicants have to provide:
- A brief summary of the work that they have been involved with in the last five years
- Three professional references

Applicants should also be able to

- work occasionally at altitude up to 2400 m
- travel and work away from base and overseas

Contractual information

This is a permanent position. The probation period will be of six months. The appointment will be at grade E with a starting annual gross salary of €41,470 Euros which is subject to Spanish income tax and social security deductions. After the first year, the salary will increase to €43,655 Euros.

Medical cover will be available to the appointee, partner and accompanying children under the Spanish National Health Service. ING will assist those coming from abroad in registering with the Social Security and Health Service. A relocation package is available and we offer financial support for Spanish lessons.

Applicants from outside the EU need to be in possession of both a residence permit and work permit which must be valid for Spain.

The offices are at the sea level, but the post requires occasional work at the telescopes at 2400 m.

Applications

Please send a completed application form, available from http://www.ing.iac.es/About-ING/Vacancies/vacancies1.html, to recruit@ing.iac.es. The form must be completed in English. Information related to the terms and conditions is available from the Head of Administration, Mr Juan Martinez (juan@ing.iac.es), ☎+ 34 922 425 414.

Further information

Additional information is available from the Head of Engineering, Dr Don Carlos Abrams (don@ing.iac.es), ☎+ 34 922 425 450.

The ING is fully committed to equality of opportunity in the workplace. The closing date for applications is 16:00 (GMT) on the 30-04-2017.