2018-00268 - Ingénieur développement C++ robotique humanoïde

Contract type: Public service fixed-term contract
Level of qualifications required: Graduate degree or equivalent
Other valued qualifications: Doctorat
Fonction: Temporary scientific engineer
Level of experience: Recently graduated

About Inria

Inria, the French National Institute for computer science and applied mathematics, promotes “scientific excellence for technology transfer and society”. Graduates from the world's top universities, Inria’s 2,700 employees rise to the challenges of digital sciences. With its open, agile model, Inria is able to explore original approaches with its partners in industry and academia and provide an efficient response to the multidisciplinary and application challenges of the digital transformation. Inria is the source of many innovations that add value and create jobs.

Context

We are hiring a C++ software engineer to work on an exiting, cutting-edge, humanoid robot control software project.

Assignment

Assignments:

The candidate will develop the Graphical User Interface (GUI) for a humanoid robot control software that currently requires textual scripting of the commands and tasks sent to the robot. The software is based on ROS (Robot Operating System) with the rviz visualisation tool. The candidate will use the Qt framework to develop the GUI, more precisely the rqt toolkit (Qt development toolkit for ROS projects)

For a better knowledge of the proposed research subject:

Responsibilities:

The candidate will be in charge of the development of the GUI and the optimization of the user experience.

Main activities

Main activities (5 maximum):

Development of a GUI using Qt

Testing the GUI by writing humanoid robot control scenarios in simulation inspired by the 2015 DARPA Robotics Challenge (DRC) (Car ingress/egress, stair climbing, etc)

Additional activities (3 maximum):

Reporting
Writing documentation
Versioning with Git

Skills

Technical skills and level required:

Excellent skills in C++ development, with proven experience

General Information

Theme/Domain: Robotics and Smart environments
Software engineering (BAP E)
Town/city: Villers-lès-Nancy
Inria Center: CRI Nancy - Grand Est
Starting date: 3/1/18
Duration of contract: 2 years
Deadline to apply: 3/1/18

Contacts

Inria Team: LARSEN
Recruiter: Bouyarmane Karim / karim.bouyarmane@loria.fr

The keys to success

There you can provide a “broad outline” of the collaborator you are looking for what you consider to be necessary and sufficient, and which may combine:

- tastes and appetencies,
- area of excellence,
- personality or character traits,
- cross-disciplinary knowledge and expertise...

This section enables the more formal list of skills to be completed and ‘lightened’ (reduced) :

- “Essential qualities in order to fulfil this assignment are feeling at ease in an environment of scientific dynamics and wanting to learn and listen.”
- "Passionate about innovation, with expertise in Ruby on Rails development and strong influencing skills. A thesis in the field of **** is a real asset.”

Conditions for application

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.
Excellent skills in Linux environment software development, Git versioning tools, etc

Experience with GUI development using Qt

Languages: English required, no French required

Other valued appreciated:

Experience with robotics and ROS

Benefits package

- Subsidised catering service
- Partially-reimbursed public transport
- Social security
- Paid leave
- Flexible working hours
- Sports facilities

Remuneration

2562,00€ gross monthly