



Offer #2024-07252

Vehicle engineering: Mechatronics / Robotics / Development

Contract type : Fixed-term contract

Renewable contract : Yes

Level of qualifications required : Graduate degree or equivalent

Fonction : Temporary scientific engineer

Level of experience : Up to 3 years

Context

The ASTRA Joint-team (research joint-team between INRIA and Valeo), which is mainly concerned with autonomous vehicles, is looking for a new engineer to manage its vehicles for up to 3 years (1 year renewable fixed-term contract). As part of the development of artificial intelligence and mobile robotics at Inria, we are looking for an engineer capable of managing our vehicle platforms, both on the hardware and the software sides. The candidate should have a very good knowledge of mobile robots (preferably with experience in automated vehicles), and be experienced in at least one of the following areas: low-level control (actuators, servomotors, etc.), electronics and electrical engineering, interfaces and sensors. A software knowledge of associated prototyping platforms (ROS, RtMAPS) would be a definite plus.

The objective is to maintain and improve the equipment of our prototype vehicles. Part of the work will consist of installing new sensors, solving unavoidable low-level problems (batteries, power supply, low-level control, actuators, CAN bus, etc.), and software maintenance of the equipment. The vehicles serve as scientific demonstration platforms for the team, and the candidate will therefore be required to collaborate with students and researchers in the preparation of experiments and the organization of official demos.

Location:

The candidate will be bi-located at the Inria Paris site (office) and the Inria Rocquencourt site (garage and platforms), with shared presence. Other travels will be possible within the framework of missions.

Duration and salary :

The contract will be 3 years, with 1 year renewable contracts. Salary will follow the official salary sheets.

Assignment

The candidate will be in charge of a fleet of automated vehicle robots, whose hardware and software must be organized and maintained in good working order. We expect a robotic profile with autonomy and a strong knowledge of the hardware and software operation of the vehicles. A knowledge of development is a significant plus and notions of algorithms (control, planning, etc.) would be ideal.

Main activities

Here is a list of missions that can be entrusted to the candidate:

- Physical maintenance of vehicles (repairs, ordering new parts, etc.),
- Installation and management of sensors (do-it-yourself profile and ingenuity required),
- Installation and update of software components,
- Verification of the operation of the low-level controls,
- Code management for GIT demonstrations, continuous integration, unit tests, etc.
- Participation in the team's developments (knowledge of Python and C++).
- Participation in the management of the team's servers

Collaboration : In addition to working in the ASTRA team, the candidate will also collaborate with Inria's Experimentation and Development department (SED team), through seminars and exchanges of best practices.

Skills

Expected profile:

- Driver license is mandatory for this position
- Excellent knowledge in Robotics / Mechatronics [experience required],
- Excellent knowledge of ROS and/or RtMAPS prototyping platforms [experience required],
- Ability to propose practical and feasible solutions,
- Do-it-yourselfer and ingenious profile,
- Knowledge in code management: GIT, continuous integration, unit testing, etc.
- Knowledge in programming (C/C++, Python),
- Optional: advanced development knowledge,
- Optional: knowledge of server architectures. Languages : French optional but very desirable. Good level of English for communication (international team). Additional skills:
- Strong ability to work in groups,
- autonomy [essential],
- motivation,
- strength of initiative.

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Benefits package

- Subsidized meals
- Partial reimbursement of public transport costs
- Leave: 7 weeks of annual leave + 10 extra days off due to RTT (statutory reduction in working hours) + possibility of exceptional leave (sick children, moving home, etc.)
- Possibility of teleworking and flexible organization of working hours (after 12 months of employment)
- Professional equipment available (videoconferencing, loan of computer equipment, etc.)
- Social, cultural and sports events and activities
- Access to vocational training
- Social security coverage

General Information

- Town/city : Paris
- Inria Center : [Centre Inria de Paris](#)
- Starting date : 2024-04-01
- Duration of contract : 2 years
- Deadline to apply : 2024-06-30

Contacts

- Inria Team : SED-PRO
- Recruiter :
Nashashibi Fawzi / Fawzi.Nashashibi@inria.fr

About Inria

Inria is the French national research institute dedicated to digital science and technology. It employs 2,600 people. Its 200 agile project teams, generally run jointly with academic partners, include more than 3,500 scientists and engineers working to meet the challenges of digital technology, often at the interface with other disciplines. The Institute also employs numerous talents in over forty different professions. 900 research support staff contribute to the preparation and development of scientific and entrepreneurial projects that have a worldwide impact.

The keys to success

The Driver license is mandatory for this position.

Warning : you must enter your e-mail address in order to save your application to Inria. Applications must be submitted online on the Inria website. Processing of applications sent from other channels is not guaranteed.

Instruction to apply

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.