



Offer #2022-05094

Temporary scientific engineer for gesture estimation from videos

Contract type : Fixed-term contract

Renewable contract : Yes

Level of qualifications required : Graduate degree or equivalent

Other valued qualifications : master

Fonction : Temporary scientific engineer

Level of experience : Recently graduated

About the research centre or Inria department

The Inria Sophia Antipolis - Méditerranée center counts 34 research teams as well as 7 support departments. The center's staff (about 500 people including 320 Inria employees) is made up of scientists of different nationalities (250 foreigners of 50 nationalities), engineers, technicians and administrative staff. 1/3 of the staff are civil servants, the others are contractual agents. The majority of the center's research teams are located in Sophia Antipolis and Nice in the Alpes-Maritimes. Four teams are based in Montpellier and two teams are hosted in Bologna in Italy and Athens. The Center is a founding member of Université Côte d'Azur and partner of the I-site MUSE supported by the University of Montpellier.

Context

The objective of the ANR FSHD project can be summarized by :

- Remote assessment and artificial intelligence analysis to validate new outcome measures, biomarkers and therapeutic targets for Facio Scapulo Humeral muscular Dystrophy

Assignment

Assignments :

With the help of Stars team and F. Bremond, the recruited person will develop new algorithms.

For a better knowledge of the proposed research subject :

A state of the art, bibliography and scientific references are available at the following URL, do not hesitate to log in: <http://www-sop.inria.fr/members/Francois.Bremond/>

Collaboration :

The recruited person will be in connection with the **Nice Hospital**.

Main activities

- Analyse the requirements of partners and end-users.
- Study the limitations of existing solutions.
- Propose a new algorithm for detecting the behaviours of patients, such as moving arms
- Evaluate and optimise proposed algorithm on targeted patient video datasets
- Write reports

Skills

Profile:

- Computer vision R&D engineer with 2-3 years of experience

Technical skills:

- Development skills:
 - Programming language : mandatory (C/C++ and python), good to have (JavaScript), API (CUDA).
 - Computer vision libraries : openCV, openPose, MediaPipe and similar.
 - DeepLearning libraries: TensorFlow, PyTorch.
 - Database: SQL (such as my SQL) and NoSQL (such as mongoDB)
- Knowledge of version management tools (Git)

Important skills : Computer Vision and Strong background in C++ programming.

Languages : English

Relational skills : team work

Other valued appreciated : leadership

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 (after 6 months of employment) and flexible organization of working hours
- Professional equipment available (videoconferencing, loan of computer equipment, etc.)
- Social, cultural and sports events and activities
- Access to vocational training
- Social security coverage

Remuneration

Depends on experience

General Information

- **Theme/Domain :** Vision, perception and multimedia interpretation Statistics (Big data) (BAP E)
- **Town/city :** Sophia Antipolis
- **Inria Center :** [Centre Inria d'Université Côte d'Azur](#)
- **Starting date :** 2022-09-01
- **Duration of contract :** 12 months
- **Deadline to apply :** 2022-12-31

Contacts

- **Inria Team :** [STARS](#)
- **Recruiter :**
Brémont François / Francois.Bremond@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

- 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, willing to go for research studies in the field of Computer Vision and Machine Learning.

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.