The candidate should have a background in scientific computing, computational mechanics, computer science, or any related field.

- Interest for multi-disciplinary subject
- Strong motivation, will to learn
- Ability to work in a team
- Good relational skills

## Conditions for application

**Instructions to apply**

Candidates will be treated firstly with a complete file: CV + letter of motivation + one or more letters of recommendation + transcripts from previous years.

**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.

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**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.
Main activities

The candidate will develop a numerical framework to simulate the mechanical behaviour of microstructured materials in the open source framework SOFA: https://www.sofa-framework.org.

This tool will allow the candidate to design a proof of concept of meso-structured soft robots in the SOFA simulation environment and then to manufacture it.

If time remains, he may then investigate the design of optimal shapes of microstructures which have specific beneficial properties for soft robotics. Methods coming from the machine learning community may be used, or other methods the candidate may wish to use or develop.

The candidate will contribute to the team projects, publish in international journals and conferences.

Skills

Knowledge in programming: C/C++, Python, etc...

Version: Git

Languages: English, French is a plus but not necessary

Benefits package

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

More information about Lille:

http://www.lille3000.eu/portail/
http://www.lillemetropole.fr/mel.html

Remuneration

The gross monthly salary is 1982€ for the 1st and 2nd year, 2085€ for 3rd year.