2018-00832 - computer scientist engineer in computer graphics - geometric modeling

Contract type: Public service fixed-term contract
Level of qualifications required: Graduate degree or equivalent
Other valued qualifications: Master of Science, PhD
Function: Temporary scientific engineer
Level of experience: Recently graduated

About the research centre or Inria department

Grenoble Rhône-Alpes Research Center groups together a few less than 800 people in 35 research teams and 9 research support departments.

Staff is localized on 5 campuses in Grenoble and Lyon, in close collaboration with labs, research and higher education institutions in Grenoble and Lyon, but also with the economic players in these areas.

Present in the fields of software, high-performance computing, Internet of things, image and data, but also simulation in oceanography and biology, it participates at the best level of international scientific achievements and collaborations in both Europe and the rest of the world.

Context

The position fits into a research project FUI: 3DONCOCHIP. Grenoble-INP provides the funding.

The position is part of a research project in connection with the start-up Microlight3D, a hardware provider, and the IMAGINE research team for the software development. IMAGINE is also attached to the LJK laboratory.

Within the IMAGINE team, the project focuses on the design of 3D structures enabling the growth of cellular structures as part of human tissues.

This position concentrates on the software development part of the project and concentrates on the development of a module to model and manufacture micro-objects using 3D printer principles. Generative design is also an issue of the project. The 3D micro-objects are a few hundred of micrometers long and manufactured with a resolution of hundreds of nanometers.

The proposed approach aims at developing and disseminating micro-manufacturing hardware currently commercialized by Microlight3D (http://www.microlight.fr), on the one hand, as well as commercializing cell cultures dedicated to human cancer therapy (http://ctbiotech.com), on the other hand.

Assignment

Collaboration:
The recruited person will be in connection with Microlight3D to specify the requirements of the application.

Responsibilities:
The person recruited is responsible for writing project reports and documentation of the application.

Main activities

Main activities:

- Analysis of partners’ requirements,
- Propose solutions for the development of the application,
- Develop an application,
- Write reports,
- Write documentation.

Skills

Technical skills and level required:

- Computer graphics / geometric modelling (Master level / PhD),
- Computer programming: object-based languages, C++, Python,
- Software development, versioning software (SVN, GIT)
- Languages: French, English
- Relational skills: Team integration, communication (oral, written)
- Other valued appreciated: CAD (Computer Aided Design)

Benefits package

- Partially-reimbursed public transport
- Social security
- Paid leave
- Sports facilities
Remuneration
2350 euros/month
Note: the employer is Grenoble-INP.