Offer #2024-07971

Engineer - Additive manufacturing, 3D modeling and printing

Contract type: Fixed-term contract
Level of qualifications required: Graduate degree or equivalent
Fonction: Temporary scientific engineer

Context

Within the framework of the KARTS and DORNELL ERC Synergie projects, the engineer in additive manufacturing will be in charge of the 3D modeling and printing of maquettes used in physical experiments. This will be achieved by using existing research software tools from the team as well as commercial software.

The fabricated components will be printed in resin and filament at the Loria laboratory alongside the research team [MFX](https://mfx.loria.fr/). The components will be used for experiments defined in the project KARST (fluid behavior measurement) and DORNELL (devices for people with physical disabilities.)

Assignment

The engineer will work alongside members of the research teams involved regarding the effectiveness of the fabrication procedure and will also participate in the development of new additive manufacturing methodologies.

The MFX (Matter From Graphics) research time specializes in computer graphics and particularly in additive manufacturing. The team proposes new techniques and strategies for 3D printing.

Main activities

- 3D resin printing of complex and big models
- 3D modeling of objects with mechanical properties
- Handling and maintenance of 3D resin printers
- Handling and maintenance of 3D filament printers (including robot arms and multi-material machines)
- Use of 3D printing software for slicing of big and complex models
- Coordination with outside teams to define experiment needs and parameters, and also develop solutions to solve issues born out of these.

Skills

Technical:
- Experience in 3D printing (additive manufacturing)
- Knowledge of 3D printing in resin
- Knowledge of 3D modeling/CAD software
- Use of 3D printing software (Chitubox, Cura, etc.)
- Knowledge of programming (e.g., Python, Lua, C++, etc.)
- Optional: Knowledge of the IceSL software

Language:
- English or French.

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

Remuneration will be determined according to degree and years of experience, from €2692.00 gross per month.

General Information

- **Theme/Domain**: Interaction and visualization
  - IT Technical and production engineering (BAP E)
- **Town/city**: Villers lès Nancy
- **Inria Center**: Centre Inria de l'Université de Lorraine
- **Starting date**: 2024-10-01
- **Duration of contract**: 1 year, 6 months
- **Deadline to apply**: 2024-08-15

Contacts

- **Inria Team**: MFX (DGD-S)
- **Recruiter**: Lefebvre Sylvain / sylvain.lefebvre@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

- Team work in an international and multidisciplinary context
- Ability to work in research environments: brainstorming, autonomy, resilience to failure.

**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.