

# Research Engineer: Software Engineer for Cloud Technologies



Anchored in its territory, multidisciplinary and open to the international, Université Grenoble Alpes brings together the main public higher education institutions of the area.

**59 000** students

**7 800** employees

**109** research labs



[www.univ-grenoble-alpes.fr](http://www.univ-grenoble-alpes.fr)

**Full-time contract**

**Duration: 2 years**

**Start date: ASAP**

**Place: LIG, Grenoble, France**

**Salary:**  
**depending on experience,**  
**starting at 3000€/month**

## The LIG

LIG is a top computer science research laboratory situated in the heart of the French Alps. It counts around 500 members including full-time researchers, PhD students, administrative and technical staff.

The mission of LIG is to contribute to the development of fundamental aspects of Computer Science (models, languages, methodologies, algorithms) and address conceptual, technological, and societal challenges. Increasing diversity and dynamism of data, services, interaction devices, and use cases influence the evolution of software and systems so they need to guarantee the essential properties such as reliability, performance, autonomy, and adaptability. Addressing such challenges is the objective of 22 research teams organized into 5 focus areas.

## Your Mission

You will work within the ERODS team ([erods.imag.fr](http://erods.imag.fr)) under the supervision of Dr. Vania Marangozova.

The goal of the ERODS team is to study the construction and the management of cloud systems. The main scientific goals for the ERODS team are self-management, distributed runtime support and virtualization.

You will conduct research on the smart scaling of microservice-based architectures in the scope of the SCALER project (<https://scaler.gricad-pages.univ-grenoble-alpes.fr/web/>). You will contribute to the design and implementation of new scaling tools for Kubernetes. Standard tools struggle with life cycle management challenges at scale and fail to fix the performance problems fast enough.

## Contact

Send CV, motivation letter and references to Vania MARANGOZOVA at [vania.marangozova@imag.fr](mailto:vania.marangozova@imag.fr)

## Your Activities

- Design and implementation of software bricks for microservice smart scaling, including monitoring, enhanced control and runtime reconfiguration.
- Project manager and chief contributor for the final integrated software to be delivered.
- Relation management with the K8S ecosystem
- Communication and advertising of the SCALER work
- Deployment and enhancement of the use cases provided by the industrial partners EOLAS (cloud provider) and Orange (5G network).

## Your Profile

- MS in Computer Science
- Solid background in distributed systems and software development
- Curious, motivated
- Work efficiently individually and in a team
- Rigorous and organized
- Innovative thinking

### Important details concerning the position

LIG is a ZRR zone which requires a special habilitation to work within. The request and delivery of this habilitation may take up to two months.

## Why Work at UGA?



### Social Action

- Financial Advantages
- University Activities Committee



### Work vs. Personal Life

- 5 week annual leave
- Diversity, Special Needs, Quality at Work



### Coaching

- Mobility
- Training, Career Planning



### Campus

- Sports
- Culture and Art
- Exceptional Location
- Accessibility

## Postulate

CV, motivation letter and references

Mail to  
vania.marangozova  
@imag.fr

HR:  
FOSCALLO Anthony

Interview