Grenoble INP - UGA is a member of **international** engineering and management education and research **networks.** It is widely recognized in national and international rankings**.**

8 schools + **40** laboratories

9 000 students

1 300 teaching, research, administrative and technical staff

Grenoble INP-UGA is a renowned public institution of higher education and research, and a major player in the Grenoble ecosystem. It is the engineering and management institute of Grenoble Alpes University, and plays a leading role in the scientific and industrial community.

University Professor Position

Short Profile	Models, Languages and Algorithms for AI
Body	University Professor
Position N°	27 PR 0479
CNU Section	27
Site	Grenoble
Start by	01/09/2022
Key words	Artificial intelligence, machine learning

Grenoble INP – UGA is a university recognized for its academic and research excellence through obtaining the French label "Initiative d'excellence". It offers innovative engineering and management programs, with an increasing internationalization of its course offers. The courses are grounded in sound scientific knowledge and linked to digital, industrial, organizational, environmental and energy transitions. The school constitutes the institute of engineering and management for Grenoble Alpes University, with its 1300 staff members (teacher-researchers, lecturers, administrative and technical staff) and 9000 students. It located on 8 sites (Grenoble INP - Ense3, Grenoble INP - Ensimag, Grenoble INP - Esisar, Grenoble INP - Génie industriel GI, Grenoble INP - Pagora, Grenoble INP - Phelma, Polytech Grenoble, Grenoble IAE and the INP Prepa). Grenoble INP is also a highly-ranked institution of higher education and research, leading the way in the fields of engineering and management on an international scale. It is a member of a large number of international academic and research networks. It is part of the European University UNITE!.

As part of Grenoble Alpes University, Grenoble INP has associated guardianship of 40 national and international research laboratories and of technological platforms. The research conducted there benefits both its socio-economic partners and its students. Grenoble INP is at the heart of the following scientific fields: physics, energy, mechanics and materials science, digital science; micro and nano-electronics, on-board systems; industry of the future, production systems, environmental science and management.

Grenoble INP - UGA is s an equal opportunity employer committed to sustainability. Grenoble INP-UGA celebrates diversity and equity and is committed to creating an inclusive environment for all employees. All qualified applications will be considered without discrimination of any kind.

Teaching

Ecole de rattachement : Grenoble INP - Ensimag

Site web de l'école : http://ensimag.grenoble-inp.fr/

Contacts : jean-louis.roch@grenoble-inp.fr, christophe.rippert@grenoble-inp.fr

Grenoble INP-Ensimag is a leading French school in the digital field. It provides high quality theoretical and technological courses in computer science and applied mathematics. It prepares students for careers as digital engineers in many sectors such as information systems, finance, embedded systems, networks, and all industries for design and decision support tools.

Teaching profile :

Grenoble INP-Ensimag, a landmark school for digital technology, is recruiting a professor of computer science with the drive and ability to create and manage courses from the 1st to the 3rd year of engineering, as well as in the Master's program. The successful candidate is expected to oversee the computer science modules of the Ensimag core curriculum, covering the entire first year and about 50% of the second year.

The successful candidate will teach at Grenoble INP-Ensimag, primarily in the fields of algorithms, imperative and object-oriented programming and data structures. The aim is to develop the programming skills of engineering students. In addition, skills in compilation, software engineering and operating systems are welcome, as these topics are part of the core curriculum for all Grenoble INP-Ensimag engineering students.

In collaboration with the teaching teams involved, the successful candidate will be involved in the development of project-based teaching and lifelong learning, in particular in the development of digital training materials.

Grenoble INP-Ensimag aims to provide a responsible and ecologically efficient digital education to all its students; these aspects should be taken into account in the curriculum, particularly with regard to ethical aspects. In addition, a significant involvement in the School' s joint leadership is expected.

Research

Equipe : LIG (UMR 5217 Grenoble INP - UGA, UGA et CNRS)

Site web Laboratoire : http://www.liglab.fr/

Contacts : noel.de-palma@grenoble-inp.fr

The Grenoble Computer Science Laboratory (LIG) is a leading laboratory with the following research partners : CNRS, Grenoble INP, Inria Grenoble Rhône-Alpes, l'Université Grenoble Alpes,

The LIG brings together nearly 500 researchers, teacher-researchers, PhD students and research support staff. They come from different organizations and are spread over three LIG sites: the campus, Minatec and Montbonnot. The ambition is to rely on the complementarity and recognized quality of the 22 LIG research teams to contribute to the

development of the fundamental aspects of computer science (models, languages, methods, algorithms) and to develop synergies between the conceptual, technological and societal challenges in this field

Profil de recherche :

Unlocking value from data in a variety of fields is a key challenge in computer science. This challenge is the focus of AI today. It requires, among other things, to identify relevant information in these data, to extract knowledge from them and to perform a number of data mining and machine learning tasks such as classification (supervised or not), prediction or decision support. Today, AI algorithms are considered socially responsible and must be examined through the development of explainable and seamless models. This implies studying the fairness, acceptability, trust, and privacy of supervised or unsupervised, deep or shallow learning approaches in all domains. The various applications of AI in particular require the development of new approaches to privacy protection in inference methods, to study algorithmic biases, and to promote seamless information retrieval. Explainability is also a major focus of the social responsibility of AI algorithms. Moreover, the environmental responsibility of AI algorithms is an object of study through the development of models to characterize their energy expenditure.

The Grenoble Computer Science Laboratory (LIG) is looking for excellent candidates to consolidate its leadership and to participate in the laboratory's dynamics in this field. The successful candidate will develop new models, algorithms and tools for AI to make the best use of the available data. The scientific profile and the research project of the candidates will have to be in line with at least one of the following themes contributing to the AI theme at LIG:

- Models, Languages and Algorithms for AI

- Information and knowledge extraction, knowledge representation,

- Machine learning,

- Information retrieval,

- Responsibility and algorithmic ethics of AI,

- Transparency of AI decisions,

- Energy consumption of AI algorithms,

- Application of AI

Considered integration at LIG will take place within one of the following host teams that contribute to AI in various ways: APTIKAL, STEAMER, SLIDE, MRIM, MOEX, GETALP, TYREX, SIGMA, DATAMOVE.

Position assigned in a restricted area: YES/NO

(Protection of the scientific and technical potential of the nation, conditional on the appointment of the teacher-researcher)

(Protection of the nation's scientific and technical potential, conditioning the appointment of the teacher-researcher on the authorization of the Defense Security Officer).

Specific Requirements or Conditions

The administrative tasks related to the position of professor : responsibilities of teaching or research units, responsibilities of programs or years.

How to apply

Applications must be submitted on the Galaxie platform of the Ministry of Higher Education and Research between Thursday, February 24, 2022, 10:00 a.m. (Paris time) and Thursday, March 31, 2022, 4:00 p.m. (Paris time), the closing date.

Any submission received outside the Galaxie platform will not be taken into account.

When the selection committee interviews the candidates, they will be asked to take part in a professional teaching situation; the details will be communicated when the invitation is sent out. In addition, part of the interview may be conducted in English.