


IMT Mines Alès
École Mines-Télécom


SCIENCE & CREATIVITY TO INVENT A SUSTAINABLE WORLD

NOUS RECRUTONS

Research Engineer in Software Engineering for the ANR AdaptiveMLOps project (M/F)

Institution:	IMT Mines Alès (National School of Mines of Alès)
Main assignment:	Center for Teaching and Research in Computer Science and Systems (CERIS) – SyCoIA
Administrative residence:	Alès (Gard department – Occitanie region)
Type of contract:	24 mounths – Public law contract – Full-time
Start date:	**November 1, 2026**

1. Presentation of our institution, of the teaching and research center in computer science and systems CERIS

1.1 The Institut Mines-Télécom

The Institut Mines-Télécom (IMT), a major institution under the French Education Code, is a public scientific, cultural, and professional institution (EPSCP) under the primary supervision of the ministers responsible for industry and digital technology. The leading group of engineering schools in France, it brings together 11 public engineering schools across the country, which train 13,500 engineers and PhDs. IMT employs 4,500 people and has an annual budget of €400 million, 40% of which comes from its own resources. IMT has two Carnot institutes, 35 industrial chairs, produces 2,100 A-rank publications and 60 patents annually, and carries out €110 million worth of contract research.

1.2 IMT Mines Alès

The school's mission: "Through its membership in IMT and its strong regional roots, IMT Mines Alès offers its students the best opportunities to reach their full potential and become responsible contributors to national development while preserving the planet's resources." The values that drive us: boldness, commitment, sharing, and excellence.

Founded more than 180 years ago, IMT Mines Alès currently has 1,400 students, including about 250 international students and 380 staff members. It has two campuses in Alès and also operates sites in Montpellier and Pau. Its students are generalist and specialist engineers (including through apprenticeship programs), doctoral students, and master's or specialized master's students. It welcomes more than 500 trainees in continuing professional education.

IMT Mines Alès is a prestigious grande école ranked among the best engineering schools nationally and internationally. The school has three high-level research and teaching centers , which work in the fields of




materials and civil engineering (C2MA), the environment and risks (CREER), and artificial intelligence and industrial and digital engineering (CERIS). These entities bring together around 85 permanent teacher-researchers (half of whom are HDR), 40 research support staff, and 100 doctoral and post-doctoral students, who produce more than 130 A-ranked publications and €3 million in research contracts each year, a third of which are direct contracts with companies. These research staff contribute to six research units, including four joint research units (UMR). IMT Mines Alès is accredited to award doctoral degrees in four doctoral schools.

It has 12 technology platforms and 1,600 partner companies. Creativity is a key feature that permeates all its activities. The school was the first to create an incubator in 1984 (200 companies created to date, 1,000 jobs). The school offers rich and varied career paths: faculty members have opportunities for professional mobility within the various IMT schools and can also, if they wish, take on responsibilities within the school's functional departments (academic affairs, research, international affairs, economic development, etc.) for part of their time.

At IMT Mines Alès, each person is a key player in our Sustainable Development and Social Responsibility (SD&SR) approach. We are committed to promoting environmentally friendly practices, fostering diversity and inclusion, and ensuring ethics in our activities. We encourage all our employees to adopt a responsible approach in their daily actions and to propose innovative ideas that reinforce our positive impact on society and the environment.

1.3 Center for Teaching and Research in Information Systems and Management (CERIS)

CERIS is home to two research units: SyCoIA (Complex Systems and Artificial Intelligence), which focuses on understanding and managing complex systems in the context of change linked to the rise of digital technology, and EuroMov Digital Health in Motion, a joint unit under the joint supervision of IMT Mines Alès and the University of Montpellier, which focuses on human sensorimotor performance, with applications primarily in health and sports. Two teaching departments are attached to CERIS: 2IA for Computer Science and Artificial Intelligence and PRISM for Industrial Performance and Mechatronic Systems, as well as two technology platforms, AIHM for Alès Imaging and Human Metrology and PFM for Mechatronics Platform.

The ‘Industry of the Future’ area of excellence represents a new paradigm for business organization, drawing on key principles, resources, and technologies that have both methodological and technological impacts. The PRISM department enables students to specialize in industrial and mechatronic systems engineering to meet the challenges of digital transition in the service of performance. Among other things, it focuses on strong skills in complex systems engineering.

In the midst of technological change, our organizations (industrial, educational, medical, governmental, administrative, and financial) are increasingly connected and rely on IT tools and solutions that give artificial intelligence an increasingly important role. The 2IA department offers students the opportunity to specialize in software application development to meet the challenges posed by this change. It is offered in two tracks within the initial training program and one within the apprenticeship program.

1.4 Presentation of the research team

The successful candidate will be assigned to the SyCOIA research unit. They will report to the director of CERIS, the director of SyCOIA and will be functionally responsible to the heads of the GLxIA research team (Software Engineering for and by AI), who coordinates the ANR AdaptiveMLOps project.

In a context marked by the acceleration of digital transformations, the emergence of complex cyber-physical systems, and the widespread use of artificial intelligence in decision-making processes, engineers and researchers are facing new scientific challenges: designing resilient, adaptive, explainable, and interoperable systems capable of operating in uncertain environments while respecting human, ethical, and regulatory constraints. This complexity calls for an integrated approach, combining modeling, simulation, systems and software engineering, trusted AI, process optimization, and human decision-making. It is in this context that the SyCoIA research unit operates. Drawing on its multidisciplinary expertise, SyCoIA has defined a manifesto in the form of a research project: to design and pilot intelligent systems using approaches that integrate artificial intelligence, software engineering, systems engineering, modeling, and simulation, for a **trustworthy digital**



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transformation that is human-centered and adapted to dynamic and uncertain environments. It will focus in particular on complex systems capable of learning, adapting, and making decisions in a reliable, explainable, and interoperable manner in dynamic and constrained environments by proposing theoretical and methodological frameworks to guarantee the performance, robustness, traceability, and trustworthiness of these intelligent systems.

2. Job description

The use of AI models is poised to become mainstream in application development. To achieve this, AI code must be fully operationalized, that is, transformed into robust software components that meet both functional and quality requirements for deployment and execution across development, testing, and production environments. This objective requires adapting or extending the software production management and automation frameworks provided by DevOps infrastructures. Specifically, it involves incorporating the principles, strategies, and best practices of MLOps, which are dedicated to the continuous development, deployment, monitoring, and maintenance of AI models.

To preserve the DevOps philosophy—which removes the barrier between development and operations phases—MLOps must enable collaboration between Data, AI, and Software engineers within projects, or assist them in mastering the many domain-specific components required for the design and deployment of AI models. A no-code / low-code solution would be well-suited to the diverse profiles of contributors, who must work with concepts far from their areas of expertise. However, designing such a solution is challenged by the diversity and variability of the components that make up MLOps pipelines.

The goal of the ANR AdaptiveMLOps project is to explore the application of product line engineering approaches to catalog the recurring elements of MLOps pipelines and document their static and dynamic variability. The domain knowledge thus collected and formalized will help guide and support the design of MLOps pipelines through reuse, composition, and configuration. It will be implemented using a model-driven engineering approach that will propose a DSL (Domain-Specific Language).

AdaptiveMLOps specifically targets the automatic and dynamic management of (re)deployment across multiple providers of different parts of the pipeline and the associated AI components, to optimize performance, cost, and environmental footprint. All solutions will be prototyped and validated through proofs of concept (PoCs), using the industrial partner's platform (a cloud solutions provider), based on real-world use cases provided by the industrial partner's clients (major French corporations).

You will integrate the GLxIA team and support their research activities in the ANR AdaptiveMLOps project as a research engineer.

Your job will be primarily to contribute to the achievement of the scientific objectives of the ANR AdaptiveMLOps project by developing POCs, running experiments, co-writing articles and disseminating the results of the project.

You may also contribute to teaching activities in your areas of expertise in the courses taught by CERIS-related training programs. Finally, you may be asked from time to time to contribute to other educational activities and exercises at the school: supervising field assignments, supporting project groups, internships, etc.

3. Required profile and general evaluation criteria

Your manager and the team in place will support you in the development of your skills, while valuing your experience and talents.

Minimum level of education and/or experience required :

Beyond your degree, your personality will make the difference.

- Master's Level 2 or Ph.D. in Software Engineering




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Skills, knowledge and experience required:

- Model-Driven Engineering
- Product Line Engineering
- DevOps/MLOps Concepts and Tools
- Software architecture development and management
- Autonomic adaptation of software architectures
- Static and dynamic variability of software architectures
- Proficiency in English, particularly written English

Skills, knowledge and experience appreciated:

- Artificial Intelligence, or combinations of software engineering and artificial intelligence
- Willingness to become part of a research team and contribute to the writing of scientific articles
- Extensive research experience (internships, assignments, projects, Ph.D.)

Technical and transversal skills required:

- Dynamism
- Autonomy
- Involvement
- Teamwork
- Organizational skills
- Rigour and methodology
- Initiative
- Adaptability
- Intellectual curiosity
- Creativity and innovation

4. Application

The position offered by IMT Mines Alès is a 24-month, full-time, fixed-term contract, under public law under the provisions of the management framework of the Institut Mines-Télécom, profession R, research and development engineer, category II.

Salary: starting at €33,614 gross per year, depending on qualifications and experience

Application procedure

Applications (CV and cover letter) should be sent **exclusively to**: ⚠
https://institutminestelecom.recruitee.com/o/ingenieure-de-recherche-en-ingenierie-logicielle-pour-le-projet-anr-adaptivemlops-cdd-24-mois-imt-mines-ales

The people in charge of recruitment will study your application carefully.

Recruitment schedule

A jury composed of several people will receive you and will make sure to put you in the best conditions to make this meeting a success.

Application deadline: August 28, 2026

Expected indicative date of the jury: September 11, 2026

Expected start date: November 1, 2026




Contact

If any elements of the application require further clarification, please do not hesitate to contact the following persons:

- For scientific or teaching-related inquiries:

  Christelle Urtado/Sylvain Vauttier, coordinators of the ANR Adaptive MLOps project
  : christelle.urtado@mines-ales.fr
  : sylvain.vauttier@mines-ales.fr

- For administrative matters:
  Géraldine BRUNEL, Director of Human Resources
  :geraldine.brunel@mines-ales.fr

Job Integration

A serene integration for a successful start to the position

As soon as you arrive, you benefit from an integration period to help you discover your missions and your work environment. You will be welcomed by your HR referent, who will guide you through all the steps necessary for a serene start to your position.