Assistant Professorship Position in AI for Insurance

at ENSAE Paris - CREST

ENSAE Paris and CREST are recruiting an Assistant Professor in the field of the applications of Artificial Intelligence to insurance. The recruitment benefits from the financial support of the Hi! PARIS Center in artificial intelligence.

Context

Insurance plays a key role in the adaptation of the economy and society at large in the context of climate change and of the emergence of new risks (e.g., cyber, pandemics). Via the definition of collective protection, insurance secures the development of industries and activities that may be vulnerable to unexpected disasters and protects individuals offering them assistance and financial compensation. The sector also strongly contributes to the development of prevention and to the diffusion of norms that can contribute to the resilience of society.

Insurance is a field undergoing significant transformation, both due to the evolution of risks and the development of artificial intelligence techniques in risk quantification. These techniques are particularly anticipated in addressing challenges related to climate change adaptation. Indeed, with the skyrocketing costs of compensation, the question of insurability— i.e., the ability to collectively bear the consequences of a risk through mutualization—has arisen. Artificial intelligence appears essential for improved anticipation through the analysis of previously untapped data (satellite, textual, and image data, among others). It plays also a key role in the conception of new forms of mutualization, materialized by the emergence of insurtechs devoted to collaborative insurance.

Candidate Profile

Candidates should have a recognized research activity in machine learning, actuarial science, extreme value theory and/or reinforcement learning for optimal decision process. They should have an excellent scientific background and significant teaching experience.

We expect publications in applied mathematical and machine learning journals (Journal of Machine Learning Research, JASA), insurance economics journals (Insurance: Mathematics and Economics), or interdisciplinary journals like Management Science, International Journal of Disaster Risk Reduction, etc.

The ability to interact and collaborate with current or future members of the laboratory will be an important criterion. Naturally at the interface of several fields, the researcher with such an expertise in AI for insurance will easily be able to collaborate with researchers in statistics, computer science or finance at IP Paris and beyond, particularly in the industry.

Teaching duties

The recruited candidate will spend a large part of his/her teaching duties at the actuarial program at ENSAE. He/she will be responsible for revitalizing teaching in artificial intelligence in line with the research profile, in particular through the creation of courses on generative AI and its application to insurance, especially climate risks. She/he will also be involved in supervising the final dissertations (actuarial theses) written by students in the actuarial track, for their admission to the Institute of Actuaries.

Terms and conditions

The appointment starts on September 1, 2025. Salary is competitive according to qualifications. Teaching duties are reduced compared to French university standards.

The position is attributed for an initial three-year term (during which teaching duties is reduced by half if the PhD was obtained less than 3 years earlier), renewable for another three years (with full teaching duties) before the tenure evaluation based on publication track record as well as teaching feedback.

Candidate Requirements

- ☐ PhD in Applied Mathematics, Actuarial Studies, Computer Science.
- ☐ Publications or potential to publish in leading international journals in Actuarial Studies, Machine Learning, Applied Probability, Econometrics and/or Statistics.
- ☐ Ability to teach Machine Learnin/AI and/or Actuarial Science at the undergraduate and graduate levels, and to supervise student projects in these areas

Application documents should be submitted in French or English to recruitment@ensae.fr; they should contain:

- ☐ A curriculum vitae ;
- ☐ Details of current and future research projects and past teaching activities ;
- ☐ The names and addresses of at least three French or foreign academic referees who could write a letter of recommendation.

Application deadline: 30 April 2025

Selected candidates will be invited to present their work at ENSAE-CREST.

Contact persons

- Jean-David Fermanian, Head of the Finance-Assurance lab : jean-david.fermanian@ensae.fr
- Arnak Dalalyan, Director of CREST : arnak.dalayan@ensae.fr
- Fabien Perez, Head of Graduate Studies at ENSAE Paris : fabien.perez @ensae.fr

The members of CREST's Finance/Insurance division conduct research in a wide variety of fields: financial econometrics, risk management, applications of artificial intelligence techniques in finance and insurance, cyber risks, energy finance, green finance, etc.

ENSAE Paris is part of the group GENES (Groupe des écoles nationales d'économie et statistique), a public institution of higher education and research specialized in Economics, Statistics, Finance, Insurance and Sociology. CREST (center for research in economics and statistics) is a joint research unit between CNRS, GENES and Ecole Polytechnique, covering the same scientific fields.

GENES recruits, employs, and promotes regardless of race, religion, color, national origin, sex, disability or age as required by applicable law.