

## POST-DOCTORAL POSITION IN MACHINE LEARNING FOR HEALTHCARE

Position starts at 1<sup>st</sup> September 2026.

Deadline for applications: 15/03/2026 (applications will be processed on a rolling basis as they are received).

The Centre for Research in Economics and Statistics (CREST, CNRS UMR 9194, Groupe ENSAE-ENSAI, École polytechnique) is a leading research institution in Paris, France, specializing in quantitative methods and computational social sciences. For more information, please visit the [CREST website](#).

### The position:

The successful candidate will join an interdisciplinary team conducting research on the efficiency of the healthcare systems as part of the GRAPH4HEALTH project (<https://anr.fr/Projet-ANR-23-CE36-0014>). The main objective of the project is to improve the efficiency of the healthcare system by:

- 1) assessing the quality of the healthcare system,
- 2) constructing tools for predictive medicine
- 3) constructing a recommendation system at the patient level (recommend an event or an entire 'optimal pathway')

Our methodology relies on embeddings via LLM of patients' medical pathway, key medical events as well as doctors. We may also consider graph embedding technics for the vector representation of local healthcare systems. The construction of KPIs dedicated to the quality of a medical pathway or of the interaction of a patient with a doctor (or in general a medical event) will also play a key role in our approach. Our recommendation system will be based on policy optimization in reinforcement learning.

The post-doctoral position is available for one year starting from September 2026 (possible to start earlier). You will be an integral member of a research team comprising economists, statisticians and machine learners, epidemiologists, data engineers and medical doctors.

### Your profile:

- PHD degree in ML with quantitative background or computer science.
- Strong interest in understanding the organization and efficiency of healthcare systems.
- Coding proficiency in Python is required.
- Fluency in English. Fluency in French is a plus but is not required.

### We offer:

- Contract type: Fixed-term contract (CDD) of 1 year.
- The post-doctoral salary is competitive with similar programs at other universities.
- Working hours: full-time.
- Start date: September 2026 (can be adjusted to candidates' preferences).
- Workplace: Most of the work is expected to be conducted at CREST in the Palaiseau building of [ENSAE Paris](#). While remote work is feasible on selected days, face-to-face engagement will be prioritised whenever possible.

### Benefits:

- 39 days of paid leave.
- 75% reimbursement of public transportation costs.
- Participation in the company health insurance plan
- Services (company restaurant, library, postal service, hairdresser, post office, Polytechnique Museum)
- Health services: physiotherapist, osteopath free of charge, on-site medical service and social worker.
- Sport facilities: swimming pool, tennis courts, gym, ... And a variety of sporting activities

**Application process:** Please send your applications to [chone@ensae.fr](mailto:chone@ensae.fr) and [lecue@essec.edu](mailto:lecue@essec.edu) including: a cover letter, a resume, and academic transcripts.

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*Groupe ENSAE-ENSAI is committed to recruitment that promotes equality, diversity and inclusion.  
All applications are considered without distinction (age, disability, gender, nationality, religion, sexual  
orientation, etc.).*

*All our positions are open to candidates with disabilities.*