

ONE YEAR – PRE-DOC RESEARCH ASSISTANT POSITION IN DATA SCIENCE / ECONOMICS ON THE VADORE PROJECT

Position to be filled: Starting between June and September 2025 (adjustable according to candidate preference).

Deadline for applications: 15/05/2025.

Duration : 12 months

Supervision : CREST and LISN

The Centre for Research in Economics and Statistics (CREST) is a scientific research institution specializing in quantitative methods applied to the social sciences. The laboratory's primary research areas are economics, finance, statistics, actuarial sciences, and sociology. See [the CREST website](#).

The Laboratoire Interdisciplinaire des Sciences du Numérique (LISN), based on the Université Paris-Saclay campus, is a multi-disciplinary research laboratory that brings together researchers and teacher-researchers from different disciplines in the Engineering and Information Sciences, Life Sciences and Humanities and Social Sciences. See [the LISN website](#)

Location : Mostly France Travail but also occasionally CREST and LISN

The position:

The successful candidate will join an interdisciplinary research team focusing on the development and evaluation of advanced recommendation algorithms for the labour market, in collaboration with France Travail. The project applies cutting-edge methods in machine learning and data science to study algorithmic fairness, market efficiency, and congestion effects. It also includes a series of Randomized Control Trial to measure the effectiveness

The candidate will work directly with data scientists from LISN, Université Paris-Saclay, and economists affiliated with CREST and data scientists at France Travail

Responsibilities include:

- Implementing and optimizing machine learning algorithms, specifically for experiments targeting market congestion and algorithmic fairness.
- Collaborating with data scientists at France Travail to integrate and deploy recommendation algorithms within existing technical infrastructures.
- Performing rigorous statistical and econometric analyses of experimental outcomes using causal inference methods.
- Producing clear, structured, and replicable code, analyses, and visualizations.
- Assisting in the preparation of research publications, policy reports, and technical presentations, including generating well-formatted tables (LaTeX) and figures.
- Assisting occasionally in the implementation of Randomized Control Trials associated with the Project

Your profile:

- You have recently obtained, or are about to complete, a master's degree in data science, computer science, statistics, economics, or a closely related field.
- You possess strong skills in machine learning techniques, statistical modelling, and causal inference. Prior experience or knowledge of labour economics is advantageous but not required.
- You have advanced proficiency in Python; familiarity with libraries such as PyTorch, TensorFlow, scikit-learn, pandas, and numpy is highly desirable. Experience with SQL is beneficial.
- You are fluent in either French or English, and proficient in the other language, both spoken and written.
- You demonstrate strong analytical and problem-solving skills, attention to detail, and the ability to work autonomously while maintaining excellent communication with interdisciplinary collaborators.
- You enjoy working closely with diverse teams, including data scientists, economists, and policymakers.

We offer:

- Possibility to pursue a PhD after completion of this contract, subject to mutual agreement.
- Contract type: Fixed-term contract (CDD) of 1 year.
- Working hours: full-time.
- Start date: between June 2025 and September 2025 (adjustable according to candidate preference).
- Workplace: Most work is expected to be conducted at the France Travail headquarters in Paris 20^{ème} (Porte des Lilas) and/or at the Palaiseau campus of ENSAE Paris. Remote work is possible on selected days, but face-to-face engagement will be prioritized.

Application process:

Please send your applications to elia.perennes@ensae.fr and crepon@ensae.fr, including:

- A resume.
- A cover letter.
- A sample of your coding skills in Python.

All our positions are open to candidates with disabilities.