Department of Computer Science

Tenure track Assistant Professor Position in Trustworthy and Responsible AI, Optimization and Reinforcement Learning

Application deadline: April 4, 2025
Starting: September 1, 2025

École polytechnique is part of Institut Polytechnique de Paris, a leading French institute that combines top-level research, academics, and innovation at the cutting-edge of science and technology.

The department of computer science at École polytechnique is opening a Monge Tenure Track Assistant Professor position[1], with a start date of September 1, 2025. The selected candidate will also be part of the Institut Polytechnique de Paris and the IDIA department. This position is part of the two chairs *Trustworthy and Responsible AI* and *AI and Optimization for Mobility*. Selected candidates will play a key role within the ORAILIX team at LIX, actively contributing to its research and academic activities, particularly within the two above chairs.

We are looking for outstanding researchers specializing in artificial intelligence and operations research, with a strong interest in reliable and responsible AI, addressing both fundamental and applied challenges. Our primary goal is to strengthen our expertise in trustworthy, responsible, and secure AI, with particular attention to environmental and reliability issues. This includes developing innovative solutions in explainability, transparency, and security of AI technologies by hybridizing reinforcement learning, network optimization, and optimization under uncertainty. We are particularly interested in candidates with expertise in the following areas: deep reinforcement learning and model-based reinforcement learning, decision transformers and sequence modeling, data-driven decision-making approaches, network optimization, explainable and secure AI, optimization under uncertainty, or bi-level optimization. École polytechnique is an equal opportunity employer, we value diversity in education and research, and we will give equal consideration to all applications, regardless of gender identity, age, geographical origin, disability status.

Selected candidates will be recruited under the two chairs *Trustworthy and Responsible AI* and *AI and Optimization for Mobility* with the following responsibilities:

- Conduct research projects within the two chairs *Trustworthy and Responsible AI* and *AI and Optimization for Mobility*, and contribute to their scientific and educational activities.

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[1]Assistant professor positions are full-time positions dedicated to young researchers with a PhD, such as postdoctoral students. *Monge* positions are full-time tenure track faculty positions, in the form of a three-years contract renewable once. The Monge faculty member is expected to defend his *habilitation à diriger les recherches* before coming up for tenure. After 6 years, the holder shall be promoted as Professor, provided that the evaluation of his or her research, teaching, and related activities is positive.

- Co-supervise PhD students.
- Publish in high-impact journals and participate in top-tier conferences.
- Contribute to and benefit from collaboration opportunities and funding through industrial and academic partnerships within the ORAILIX team.
- Contribute to the teaching and research activities of the new Master's program in *Trustworthy and Responsible Artificial Intelligence* (*TRAI*) as part of the *IA Cluster* project at École polytechnique.
- Developing and implementing project-based pedagogical approaches that strengthen the link between teaching and research is particularly valued for this position.
- Teach computer science courses at various levels, including the Bachelor's cycle, the Engineering Program (cycle ingénieur polytechnicien), and Master's programs.

Whenever possible, teaching should integrate the United Nations' sustainable development goals.

École polytechnique offers an exceptional academic environment, with tailored pedagogical support and access to scientific and administrative resources through the DIX department and the LIX laboratory. Moreover, the candidate will benefit from a reduced teaching load during the first 3 years. More information on the department is available on its website.

Interested candidates are invited to submit the following documents:
- A complete CV detailing their academic and professional background.
- A description of their teaching and research projects, outlining their contributions and future plans.
- Three recommendation letters supporting their application.

The application deadline is April 4, 2025, and submissions must be made through École polytechnique's official website. Interviews are scheduled for May 2025.

Candidates are strongly encouraged to contact department members before submitting their applications, to discuss and refine their teaching and research projects:
- Samuel Mimram, President of DIX, about teaching,
- Damien Rohmer, for LIX, about research,
- Sonia Vanier and Jesse Read or questions concerning the ORAILIX team and the TRAI Master's program.