Department of Computer Science

Full-time Assistant Professor Position
In Bioinformatics or Machine Learning

Application deadline: March 15 2021
Starting : September 2021

The Department of Computer Science of the Ecole Polytechnique is willing to recruit an Assistant Professor (*), carrying out a research project in either Bioinformatics, or Machine/Deep Learning.

We are looking for an excellent young researcher in Computer Science – at the best international level attested by publications in the best journals and conferences of his/her field – conducing research in either bioinformatics or machine/deep learning. The candidate will be required to present a detailed scientific project demonstrating how his/her research will strengthen one of the teams of our Computer Science laboratory (LIX), and especially the teams AMIBio or DaSciM.

- In Bioinformatics, the candidate's research should focus on the development of methods in Computational Biology, with a strong emphasis on sequence algorithms/data structures, and combinatorial/geometric algorithms. Relevant areas of research include RNA bioinformatics, high-throughput sequencing data processing, structural bioinformatics, and comparative genomics. Previous experience with either/or: transcriptomics; integrative structure modeling, based on comparative (e.g. DCA) or probing data (e.g. SHAPE); molecular design; or machine learning applied to life sciences, would be a plus.

- In the area of Machine/Deep Learning, research may focus on machine/deep learning for graphs, text mining and natural language processing (NLP), data stream mining, methodological research on deep or reinforcement learning. In addition, experience in either of the following application domains: social networks/digital marketing, biomedical, image/computer vision, industrial data, will be a positive complement.

On the teaching side, the candidate should be able to contribute to core computer science curriculum (bachelor's and first years of the Polytechnic engineering cycle) as well as advanced research-oriented courses, by integrating into existing teaching teams. In particular, he or she will help to strengthen our specialized sectors and masters in bioinformatics and / or artificial intelligence. The ability to develop project-based teaching and evaluation (i.e. data challenges), and to strengthen links between teaching, research and applications will be highly appreciated. Being fluent in French is a plus, but not mandatory.

The Ecole Polytechnique offers an exceptional environment, with an adapted teaching load, as well as the support (scientific, administrative, and budgetary) of the DIX department and the LIX laboratory, for the preparation of a habilitation to lead research.

The candidate is strongly encouraged to contact members of the department prior to the application, to discuss and refine his/her teaching and research projects:

- Marie-Paule Cani (marie-paule.cani@polytechnique.edu), Président of DIX, about teaching ;
- Gilles Schaeffer (gilles.schaeffer@polytechnique.edu) Director of LIX, about research ;
- The Head Person of the research group to discuss integration in a team:
  - Yann Ponty (yann.ponty@lix.polytechnique.fr) for Amibio
  - Michalis Vazirgiannis (michalis.vazirgiannis@polytechnique.edu) for DaScim.

The deadline for applying through the Ecole Polytechnique website (http://www.polytechnique.edu/) is March 15 2021 and interviews will be planned the first weeks of May.

(*) Assistant professor positions are full time, permanent positions, dedicated to young researchers with a recent PhD, such as post-doctoral students. These positions are similar, in terms of duties, to those of "Maître de conferences" in French Universities, but qualification from the CNU is not required. A more detailed description is available on the website.