Post-Doc on Machine Learning for COVID-19 pandemic analysis

Keywords: Machine Learning on Graphs, Geographic Information Systems, COVID-19
Profile: Doctoral degree in ML for Graphs or a related topic
Institute: IHU Strasbourg
Location: Strasbourg, France
Supervisor: Dr Georgios Exarchakis
Application Deadline: 04 April 2021

We offer a post-doc position attached to the CAMMA team at IHU Strasbourg for motivated researchers interested in developing state of the art Machine Learning algorithms for monitoring the COVID-19 pandemic. The Institute provides a multi-disciplinary environment where clinicians collaborate with engineers to provide real-world medical solutions. The intended project considers managing geographic data, at a neighborhood level resolution, in Graph format to identify regions of interest in the COVID-19 spread patterns. An analysis of the dynamics of the spread will also be considered to provide insights on the evolution of the pandemic. The post-doc will be expected to perform data sanity checks, to design and apply a bottom-up Machine Learning analysis for the geographic structure of the pandemic, and to apply state of the art Deep Learning algorithms for the analysis and prediction of the evolution of the pandemic.

An ideal applicant will have a strong background in Machine Learning with a particular emphasis on Graph based algorithms. Experience with Geographic Information Systems will also be highly considered. Experience in the Python programming language with at least one of the popular ML libraries, e.g. Pytorch, TensorFlow. The successful candidate is expected to have high quality publications in leading journals in their field.

Working conditions and remuneration are negotiable and will depend on the profile of the candidate. The project will be supervised by Dr. Georgios Exarchakis in close collaboration with Prof. Benoît Gallix, and Prof. Nicolas Padoy.

For further information on the application please contact Dr Georgios Exarchakis at georgios.exarchakis@ihu-strasbourg.eu with "COVID-19 Post-Doc" as the email title. For applications, please provide your CV, copies of your academic degrees, and a cover letter detailing your interest in the position.