Research Engineer in Machine Learning and Artificial Intelligence

The Institute for Language, Communication and the Brain (ILCB) gathers more than a hundred researchers with the aim to understand the way that language functions and to model it by bringing together experts in linguistics, neuroscience, psychology, medicine and computer science, from ten laboratories in Aix-Marseille Univeristy. The objective is to create a generic model of the processing of language and its cerebral bases. The ILCB is opening a research engineer position for a period of 4 years (CDD of two years renewable once).

**Mission**

Artificial Intelligence and Machine Learning have become very powerful tools for analyzing data from experiments, whether imagery data, neurophysiolgical signals (EEG, fMRI, SEEG, MEG), data behavioral, sound, visual stimuli etc. Despite the availability of many free packages, the handling of these and the development of efficient methods adapted to specific use cases requires a specialist’s experience.

The research projects carried out within the ILCB are very diverse and many require more or less complex analysis to make the best use of the data under study. However, not all members of the ILCB are trained for, and are not intended to carry out advanced studies based on machine learning. The research engineer in Machine Learning and Artificial Intelligence will aim to facilitate and accelerate the completion of projects requiring machine learning within the ILCB. The recruitment objectives for this engineer are multiple and will concern:

*Technical support*

* Direct participation in projects driven by members of the institute, based on short and targeted periods
* Advice to members of the institute to guide them in their technological choices to carry out their projects
* Promote the dissemination and promotion of studies carried out in the ILCB (demos, etc.)

*Training*

* Introductory sessions to good practices for using machine learning
* Training actions targeted on technical aspects
* Technology watch in areas related to machine learning

The recruited engineer will join the Resource Center for Experimentation, a shared service of the ILCB, formed of engineers in scientific computing and intended to support the projects of the Institute. It will operate on the same mode of service and support for projects carried out in the institute. He will also naturally have strong links with the Machine Learning researchers of the ILCB and in particular with the QARMA team of machine learning from the Laboratory of Computer Science and Systems (LIS) to best fulfill his different missions.

**Skills**

*General technical knowledge*

* Initial training in Statistical Learning, Artificial Intelligence, Deep Learning
* Good computer skills for project implementation, for designing demos, building databases etc.
* Good level in mathematics and signal processing

*Knowledge related to the professional environment*

* The scientific field of application is interdisciplinary. Knowledge is appreciated in linguistics / experimental psychology, cognitive neuroscience, physiology, computational neuroscience, psychophysics, psycholinguistics
* Work in interaction with several teams
* Demonstrated aptitude for teamwork and good interpersonal skills

**Communication and Language**

* English: Many interactions are done in English, a good level is required (type B2)

**Diploma**

* Master, Ecole d’ingénieur ou équivalent

**Desirable training and professional experience**

* Analyse de données, Apprentissage statistique

**Salary**

* *Gross monthly salary: from € 1,988.55 to € 2,239.53 depending on experience*

**Location**

* The position is based in Aix-en-Provence. The IR will have to travel to the experimental platforms, located in Aix and Marseille.

**Applications**

* Send a detailed CV at : contact@ilcb.fr
* *Deadline : Applications will be considered on the fly until June 30, 2020*

**Contact**

* *Scientific* : Thierry Artieres (thierry.artieres@lis-lab.fr) and Philippe Blache (philippe.blache@ilcb.fr)
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