Postdoctoral position: Intelligent user profiling for recommendations in a collaborative Human Resource Management System

Keywords: cognitive and behavioral processes analysis, intention mining, data mining, natural language processing.

Context
BRAINCITIES is a collaborative Human Resource Management System (HRMS) that helps companies attract and secure the best talents. Financial analysts, accountants, programmers, cooks and so on can be hired with better decision making and guidance provided by the platform. BRAINCITIES secures, simplifies and speeds up the recruitment process by matching talents and companies that have been found compatible by the system.

The relevance of the recommendations made to the talents and recruiters on the BRAINCITIES platform can be increased by the development of an intelligent contextualization engine. Intention mining, data mining, process mining and web mining techniques have to be employed to identify the intentional and non-intentional aspects of the decisions made by the users of BRAINCITIES and to identify their cognitive patterns.

Problem
On the one hand, talents need to find adequate jobs. They also need to know themselves better: what are their technical and personal skills, what are their strengths and weaknesses, with whom they are compatible to work with, what skills and certifications they should acquire to be more attractive or special for the recruiters?

On the other hand, recruitment processes need to be improved to detect talents that are not easily identifiable but who are the best match with the job offers.

Objectives
The objectives of this postdoctoral position are:

- The analysis of the input from a cognitive researcher and its integration into the HRMS,

- The development of automatic techniques based on data mining, process mining and natural language processing for user profiling and talents discovery as well as behavioral analysis from the HRMS collected data. These techniques will allow the recruiter to find the best talents.

- The development of recommendation techniques to help users identify their objectives and improve the skills aligned to the adopted objectives.

The scientific results obtained during the postdoc will be published in conferences and journals.
Candidate profile

The candidate must hold a PhD thesis in Computer Science. He / she must have strong skills in natural language processing, behavioral analysis, data mining, machine learning and software engineering (IBM Watson, Node JS, Mongo DB, ElasticSearch). He / she must have good English skills in writing and communication.

Terms of the postdoctoral position

This post-doctoral begin on 1st of April 2015 and will end March 31th 2016.

The postdoc will be recruited as a 1 year contract at Braincities. He / she will spend one day per week at the Centre de Recherche en Informatique from the Université Paris 1 Panthéon-Sorbonne (http://cri-sorbonne.fr/).

The annual gross income will be of 30 K.

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Applications have to be sent before 15th of March 2015 to :

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