PostDoc Position in the Area of Deep Learning for Video Mining and Analytics

In recent years, safety and security has become a major issue in Europe and the United States. In this context, developing a computer vision system that can automatically detect abnormal behaviour in crowds from video recorded by security cameras is of great interest.

In response to this need, an academic and industrial consortium in Belgium, consisting of Vrije Universiteit Brussel, Fourcast – a Google Cloud Partner company –, and G4S – a leading security company –, will work on a project that employs deep learning and cloud computing to build a video surveillance system that can automatically detect abnormal behavior in crowds. The system will be trained to identify anomalies in public flows in various environments as well as to learn from human feedback.

The position is within the Big Data and Audio-Visual Signal Processing teams at the Department of Electronics and Informatics at Vrije Universiteit Brussel, which specialize on signal processing and machine learning algorithms as well as distributed systems, which efficiently mine, cross correlate and analyze heterogeneous data sources.

The successful candidate's key responsibilities are:
- Contributing to the design and development of novel scientific algorithms and systems focusing on video mining and understanding as well as anomaly detection;
- Contributing to the design and development of experiments for the validation and fine-tuning of the algorithms;
- Contributing to the preparation of scientific publications and patents;
- Guidance and supervision of junior researchers.

We are especially interested in candidates with the following profile:
- A PhD degree in machine learning, computer vision or visual data mining;
- An excellent academic record with publications in top-tier scientific journals and conference proceedings;
- Fluency in statistical learning, neural networks, deep learning, sparse coding and representation learning;
- Fluency in high-dimensional visual data (image/video data, multimodal visual sensor data);
- Fluency in state-of-the-art machine learning tools (Pylearn, Tensorflow, Theano, Pandas, Caffe);
- Fluency in English and excellent scientific writing skills.

We are offering a two-year contract (starting from April 1, 2018) followed by a competitive salary, extendable further subject to performance. The successful candidate will work in an international scientific environment driven by excellence in research and industrial valorisation. The position provides a great opportunity to the researcher to work in close collaboration with established companies and to participate in the research valorisation.

Interested candidates can send: (i) a detailed curriculum vitae; (ii) a motivation letter related to the position's profile; (iii) electronic copies of three key scientific publications; and (iv) two references by **March 1, 2018** to the following contact persons:

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