

The HES-SO Geneva invites applications for a position of:

## Scientific collaborator in machine learning

In the department of Information Systems, at the Geneva School of Business Administration

**Activity rate : 90%**

### Mission:

The data mining and machine learning group has an opening for a PostDoc position on the development of machine learning methods for the modelling of pathological human locomotion in the framework of a collaborative Sinergia project funded by the Swiss National Science Foundation. The goal of the project is to develop, through machine learning and neuromechanical simulation, accurate models of human locomotion.

The project brings together expertise on pathological gait, neuromechanical simulation models, machine learning, coupled with a unique collection of relevant real world data.

On the machine learning side we will explore a number of research problems such as learning of dynamical systems using conditional generative models, learning with simulated data, learning, tuning and improving simulators.

The successful candidate will join the Data Mining and Machine Learning group at the Department of Information Systems of University of Applied Sciences, Western Switzerland, led by Prof. Alexandros Kalousis. Our research explores a number of different issues such as: learning in high dimensional settings, dimensionality reduction and feature selection, learning with structured data (multiple kernel learning), metric and similarity learning, the exploitation of domain knowledge in the learning process. For a more detailed description the interested candidates may take a look at: <http://cui.unige.ch/~kalousis/> and the list of [publications](#) within there.

### Profile : Required qualifications and experience :

- Very solid background in a combination of mathematics and computer science. Special areas of interest include: statistical machine learning, statistics, mathematical optimization, mathematical modelling.
- Should have completed, or about to complete, a PhD in machine learning.
- Strong publication record on machine learning venues, e.g. NIPS, ICML, AISTATS, UAI, ICLR, ECML, etc.
- Very good understanding of machine learning methods and algorithms; project experience in the application area will be a plus.
- Strong expertise in learning frameworks such as PyTorch, TensorFlow.
- Strong programming skills in scripting languages, such as perl, python, etc.
- Excellent command of English.
- Team work capacity.
- Minimum of 5 years of professional or academic experience / included 3 years in Research & Development

### Specifics of the post:

- The contract will be renewed on a yearly basis, according to the relevant contractual conditions of the HES-SO Geneva at the moment of renewal. Funding is secured for three years.

**The University of Applied Sciences Western Switzerland (HES-SO) Geneva is an equal opportunity employer and offers competitive wages and benefits.**

**Application Deadline: 31 May 2018**

**Starting Date: 1<sup>st</sup> September 2018 (negotiable)**

### Haute école de gestion de Genève

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The applicants should send by e-mail to [alexandros.kalousis@hesge.ch](mailto:alexandros.kalousis@hesge.ch) the following:

1. Two pages CV, including publications list.
2. One page motivation letter explaining why their skills, knowledge and experience make them a particularly suitable candidate for the given position.
3. Pointers to their two most important papers.
4. A 1000 words research proposal on the learning problematic described above.
5. The **contact details** of three referees; do **not** send reference letters.

Incomplete applications or applications that do not correspond to the description of the post will not be considered. For all information related to the working conditions you may contact the Human Resources Department HEG (HES) [rh.heg@hesge.ch](mailto:rh.heg@hesge.ch)

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