

## Expert Engineer Position (CDD)

Salary: at least 40k€/year (brut)

Term: 2 years (negotiable), Grenoble, France

Starting date: September, 2016 or ASAP.

### Keywords:

Software engineering, Big Data, Machine learning, Time series, Classification, Clustering.

### Context

This position is part of IKATS that is a Research and Development project funded by the French government in the frame of PIA program. Partners of this project are: LIG, CSSI, AIRBUS and EDF- R&D.

The IKATS project<sup>1</sup> (Innovative ToolKit for Analysing Time Series) aims to build a software toolbox, providing in the same framework all the tools allowing to manage, to explore, to analyze and to visualize large volumes of "Time Series". Indeed, "Time Series" (i.e. sequences of data points, consisting of successive measurements made over a time interval) are observed in a growing number of scientific and industrial domains, such as: medicine, biology, physics, energy consumption...

The key points of this project is to build a collaborative environment suitable for non-expert users of Data Mining and set up the "High Throughput Analysis of Multivariate Time Series" pushing the current quantitative limits both in number of time series variables and events analyzed simultaneously.

### Job description:

The successful candidate will have to implement and/or to optimize the Machine Learning and Statistical algorithms published in research papers or currently developed in the LIG laboratory and then to package these algorithms to include them in the IKATS platform. He/she will also support the collaboration between the research teams and the industrials and will collaborate to the conception of the Web based visualization tools.

### Requirements:

Qualification: engineering degree or PhD

Candidate must be knowledgeable (or having a very strong motivation) concerning Statistics, Machine Learning, applied mathematics and must have an excellent skill in software development in computer science including:

- Mandatory
  - Python (including Numpy, Scipy, Scikit-Learn), R.
  - Spark, ...
  - Unit testing, code profiling tools, issue trackers...
- Optional
  - C, Java, Scala, Matlab
  - Web visualization framework: D3.js, GIT, SVN, WebGL, ...

A very good communication skill is required.

Speaking languages: french (preferably) and english

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<sup>1</sup> <http://www.lemagit.fr/article/IKATS-le-projet-francais-de-Big-Data-industriel>

### Location:

The candidate will work in the AMA and IIHM teams (<http://ama.liglab.fr/> and <http://iihm.imag.fr>) of the LIG laboratory, at Grenoble (France). AMA is a leading group in Machine Learning and Data Analysis covering several aspects of Machine Learning from theory to applications. IIHM is primarily concerned with the software aspects of Human-Computer Interaction. This group has extensive experience in software architecture for interactive systems, multimodal and mixed reality interaction. Grenoble is a town in Alps, not far from Lyon and Geneve.

### Application:

The application should include a description of past experiences, a CV, degrees and grades and relevant publications if any. Candidates are encouraged to provide letter(s) of recommendation and contact information to reference persons. Please send your application in one single PDF to both [Gilles.Bisson@imag.fr](mailto:Gilles.Bisson@imag.fr) and [Franck.Thollard@imag.fr](mailto:Franck.Thollard@imag.fr)