
ONE YEAR POSTDOC AND ONE YEAR ENGINEER POSITION ON LARGE-SCALE OPTIMIZATION

[Application to be sent at: randopt-hiring@lists.gforge.inria.fr]

A one-year postdoc position and a one-year engineer position are available at Inria Saclay within the TAO team to work on black-box large-scale optimization within the context of the [ANR NumBBO project](#).

General context

Large-scale optimization problems arise frequently in various areas and are related to the general context of big or massive data. The current project aims at 1) developing and enhancing large-scale optimization algorithms in the case where the large-scale problem is formulated as a black-box where only zero-order information is available. Emphasize is put on stochastic algorithms while not restricted to. 2) Another facet of the project is benchmarking: we are interested to enhance the benchmarking platform [COmparing Continuous Optimizers \(COCO\)](#) in order to be able to assess the performance of large-scale optimizers.

In this context, two positions are available, one postdoc and one engineer position.

The engineer position is for working on the COCO platform, implementing new testbeds, visualization tools.

Postdoc profile

We are looking for candidates with strong backgrounds in applied math and/or statistics and/or probability and/or computer science with an experience of numerics. Knowledge in optimization and/or machine learning is almost compulsory. The project being linked to the COCO benchmarking platform, we encourage candidates who can implement new testbeds within the platform and generally are not afraid to work on the code. However we will not exclude candidates without programming experience if their theoretical background is strong.

Engineer profile

We are looking for applicants with good experience of coding and acquainted with numerics. The programming languages are Python for the postprocessing part of COCO and C for the core COCO code for the experiments that is interfaced with other programming languages. Hence, applicants should be familiar or have no aversion to Python and C in particular. We are also interested to develop visualization tools and web-interface, so experience on those aspects is welcome.

Work supervision

The work will be supervised by Anne Auger (CR, Inria), Nikolaus Hansen (DR, Inria) and Dimo Brockhoff (CR, Inria). For additional questions, please send an email to [Anne Auger](https://www.lri.fr/~auger/) (<https://www.lri.fr/~auger/>). Applications, however, should be sent to the alias randopt-hiring@lists.gforge.inria.fr.

Applicants must provide the following items electronically at the alias randopt-hiring@lists.gforge.inria.fr :

- a detailed CV
- a motivation letter
- contact details of at least 2 references

Deadlines

applications are reviewed as soon as they arrive

starting date: September 1, 2015
