Bonsai is a bioinformatics research group at University of Lille 1, affiliated with INRIA Lille - Nord Europe and CRIStAL (Université Lille 1, CNRS). The main goal of our research is to define combinatorial models and efficient algorithms for large-scale sequence analysis in molecular biology. This includes genome annotation, comparative genomics, Next Generation Sequencing, metagenomics, noncoding RNAs, genome rearrangements, non ribosomal peptides.

Two PhD positions are available in the Bonsai group (Lille, France), starting Fall 2016:

* Algorithms for analyzing assembly graphs from third-generation DNA sequencing (with R. Chikhi, J-S. Varré)
* Algorithms for finding motifs in alignments of small RNA-sequencing data in plant genomes (with H. Touzet, R. Chikhi)

Recent DNA and RNA sequencing technologies yield a large amount of short sequence fragments. Broadly speaking, these PhD positions deal with algorithms and tools for the computational analysis of such sequencing data.

Pre-requisites:

A master degree in computer science or bioinformatics, and more specifically a good knowledge of methods in discrete algorithms. Knowledge in biology is not a requirement, but then the applicant should have a strong computational background and be interested in biological problems.

How to apply:

Send applications or inquiries to helene.touzet@inria.fr, rayan.chikhi@inria.fr, jean-stephane.varre@univ-lille1.fr. Applications should include a CV, a transcript of master-level grades and the name of two references.

Please apply before April 15 2016.