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July 17st, 2019

Dr. Song Li's research group at the School of Plant and Environmental Sciences, Virginia Tech, VA, USA, is looking for a highly motivated postdoctoral associate to work on single cell regulatory network analysis in plant roots starting in Fall 2019. The appropriate candidate should have a strong background and interest in plant genomics, network analysis, sequence analysis and machine learning.

The overarching goal of this lab is to understand the relations between genotype, phenotype and environment for economically important crop species. We use machine learning to integrate genomic data and to infer regulatory networks in plants. We are also interested in comparing gene expression and regulatory networks across diverse plant species. The duty of this position is to (1) develop computational tools to analyze regulatory network data generated by DAP-seq experiments in multiple plant species, (2) analyze single cell gene expression data in plant roots and (3) develop machine learning methods to infer regulatory networks using single cell RNA-seq and DAP-seq data. The model species will include Arabidopsis and related species that are adapted to extreme environmental conditions. This project is a collaborative project with Stanford University, University of Michigan and Louisiana State University. The postdoc will be in charge of data analysis and machine learning model developing and is expected to travel to PAG (Plant and Animal Genome Conference) every year to participate in project meeting.

Qualification:
Ph.D. in bioinformatics, computational biology, plant genomics, or other relevant fields. Prior experience in developing python or R packages is required. Prior experience in using machine learning methods including deep learning neural networks is preferred.

How to apply:
The position will start in Fall 2019. Applications will be accepted until the position is filled and should include a CV, research experience and contact details of two references. Please send your application as a single PDF-file to Dr. Song Li by email: songli@vt.edu