Plant Computational Genomics and/or Bioinformatics Graduate Student Positions (MS/PhD) for Fall 2018

The Plant Computational Genomics lab in the Department of Ecology and Evolutionary Biology at the University of Connecticut seeks motivated PhD and MS students to join the lab in the Summer/Fall 2018. Our research focuses on the computational analysis of genomic and transcriptomic data generated by next-generation sequencing platforms from non-model forest tree species. We implement this through analysis related to gene finding, gene expression, transcriptome assembly, and conserved element identification, through machine learning and computational statistics. We use these methods to address questions related to genome biology and population genomics. In addition, we develop web-based applications that integrate BIG data across domains to facilitate the forest geneticist or ecologist's ability to analyze, share, and visualize their data (http://treegenesdb.org). Such integration requires the implementation of semantic technologies and ontologies to connect genotype, phenotype, and environmental resources. We collaborate and contribute to the TRIPAL project (http://tripal.info).

Potential research topics in our group include 1) development of visualization tools to support genome-wide association studies in forest trees; 2) application of genomic and transcriptomic techniques to evaluate the impact of climate change on tree populations; 3) development of software solutions to improve assembly and characterization of non-model plant transcriptomes; 4) interrogation of natural genetic variation across populations in large, complex conifer genomes; 5) and your ideas here!

How to Apply:

Financial support for M.S. and Ph.D. students is available through research assistantships, teaching assistantships, and university fellowships. To learn more about our research, please visit: http://compgenomics.lab.uconn.edu/. Excellent written and oral communication, as well as strong quantitative skills, are required. Backgrounds in genetics/genomics, evolutionary biology, bioinformatics, and computer science are desired. Interested candidates should send an email with a research interest statement (1-2 pages), a CV, unofficial undergraduate/graduate transcripts, and GRE scores to Jill Wegrzyn (jill.wegrzyn@uconn.edu). Qualified candidates will be contacted directly for Skype interviews following review. Applications will be reviewed starting December 20th.

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