Funded PhD Position is Available

Validity of this circular: from May/2016 to July/2017.

PhD Position: I am looking for STRONGLY motivated, creative, and hard-working bioinformatics PhD student to work on a recently funded exciting project, titled, "Gene Regulatory Network Based Biofuel Production Modeling in Algae".

Selection Criteria: Better analytic ability and programming skill will be needed. Student with publication(s), especially in the bioinformatics area will be given higher preferences. Students having MS degree will be given preference over student having only BS degree. Student who have completed machine learning course(s) will be given higher preference. Minimum 3.5 GPA is required.

Project Description: The project aims at developing advanced algorithms for analyzing and optimizing gene regulatory network (GRN) based biofuel production modeling in algae. Our developed top performing tools (http://cs.uno.edu/~tamjid/Software.html) will be utilized to some extent to model phenotypical interactions.

Algae are found to have a good potential for providing biofuel at a higher rate compared to any other plants. The algae have significant roles in global biological carbon sequestration and oxygen production cycle. Algae can be developed as an excellent microbial cell factory that can harvest solar energy and convert atmospheric CO_2 to useful products and thus can establish the missing link in the fuel-cycle.

This project is a collaboration between my lab @ UNO's computer science department (http://cs.uno.edu/~tamjid/) and our industry partner BHO Technology, Louisiana. My lab will develop the theoretical underpinning and software tools and BHO will test, implement and would finally make the algal fuel production commercially viable. The proposed scientific approach based computation-tools will help simulate towards ensuring survivability of engineered algae through seasonal changes as well as help pick the best kind.

This project is multidisciplinary and multipurpose. The developed GRN paradigms will be extended towards pathway analysis in cellular level and rational drug design in near future. Also, I have on going funded bioinformatics projects as well as I am recently funded by NASA to work on advanced data and text analytics using machine learning. The motivated student will not only have the opportunity to work on this exciting GRN project, but can also learn from various ongoing projects in the lab and can collaborate with other lab members.

Stipend: Based on student's current degree, the stipend will be from $21,000 to $22,000 for 12 months/year. At least 3 years' fund is available. Tuition fee will also be paid (worth $36,728 / 3-years). Therefore, except research, the student will not have any teaching load, and thus the student can fully focus on the project works.

How to Apply: Interested student, please email Dr Hoque [thoque@uno.edu] your CV showing relevant credentials (publications, degree(s), GPA, programming experiences, analytic abilities, etc.) and mention the project title, "*Gene Regulatory Network Based Biofuel Production Modeling in Algae*" in your email.

Note: Even if you emailed me before for PhD position in general and not for this project, you will have to reapply with your updated CV and the title of this project as described above, if you are interested.

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