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Postdoc and PhD positions in bioinformatics / computational biology

Texas A&M University
Electrical and Computer Engineering
United States TX College Station
<https://careers.iscb.org> (<https://careers.iscb.org>)

Description

Postdoctoral research associates in bioinformatics / computational biology are sought in the group of Prof. Yang Shen in the Department of Electrical and Computer Engineering at Texas A&M University. The topic involves algorithm development and application for mechanistic studies of disease-associated mutational effects on proteins and protein interactions, biomolecular pathways and networks, and phenotypes. Interested candidates please send a cover letter with research interests, curriculum vita, and a list of 3 reference contacts to [yshen \[AT\] tamu.edu](mailto:yshen@tamu.edu).

We also welcome Ph.D. applicants who are interested in algorithm development to address computational challenges in bioinformatics and health informatics, including modeling biological molecules, systems, and big data. Corresponding algorithms involve optimization, machine learning, artificial intelligence, pattern recognition, statistics, and systems and control. For Ph.D. applicants, experience in algorithms and programming is required but background in the application areas is not.

Qualifications

For Ph.D. applicants, experience in algorithms and programming is required but background in the application areas is not.

Qualifications for Postdoc:

1. Ph.D. in bioinformatics, computational biology, computational chemistry, computational biophysics, computer science, applied mathematics, operations research, engineering, or other related fields;
2. Algorithm development experience in one or more following areas is highly preferred: optimization, machine learning, probabilistic graphical models, causal analysis, systems and control theory, data mining, statistics, or other related methods.
3. Experience and track record in at least one application area is preferred:

(1) Protein modeling. Examples include sequence co-evolution analysis, protein structure prediction, protein-protein or protein-ligand docking, protein or drug design, conformational flexibility and search, normal modes, and molecular dynamics; OR

(2) Biomolecular network modeling. Examples include pathway analysis, graph-theoretic algorithms, differential equations, Boolean networks, and Petri nets; OR

(3) Biological data analysis. Examples include data integration and pattern recognition in genomic, proteomic, transcriptomic, phenomic, and other omic data, genotype-phenotype association, and pQTL.

4. Linux programming experience in implementing algorithms (required) and databases & web servers (plus) in one or more following languages: C/C++, Python, shell scripting, Perl, SQL, XML, PHP, JavaScript, and Java.

Start date

As soon as possible

How to Apply

Interested postdoc candidates please send a cover letter with research statement, curriculum vita, and a list of 3 reference contacts to yshen [AT] tamu.edu.

Interested Ph.D. applicants please contact yshen [AT] tamu.edu with research interests and curriculum vita (including a list of relevant courses taken).